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The Manufacture of Paper, Crash, Cotton Baling, Coarse Towelling, &c., from Corn Husks and Stalks.

A very interesting discovery in the utilization of corn husks and corn stalks has been put into successful operation in Austria, and has been recently patented in this country. It is nothing less than the production of paper of various kinds from the stalks and husks of Indian corn, leaving the blades of the corn still to be used by the farmer as fodder for his cattle. How important this discovery is to the interests of agriculture by making what has heretofore been regarded as comparatively worthless, of considerable commercial value, we now proceed to show. It is proper to state that our review of the progress of this manufacture is based partly upon an article in the Agricultural Report for 1863, and partly from a pamphlet on the same subject—the correctness of which is attested by Austrian officials, and by gentlemen of the highest reputation. A brief preliminary reference with respect to the materials used as a substitute for paper from the earliest time may not perhaps be regarded as out of place.

Among the earlier materials for paper were those requiring little mechanical ingenuity to fit them to receive impressions from an iron pointed instrument called "a stylus." Thin slips of board covered with a smooth coat of wax, and also papyrus and parchment were all employed at different times. For records, requiring preservation, plates of iron and metal with the letters engraved, were used. In the year 95 of the Christian era, the Chinese appear to have discovered the art of making paper from fibrous materials reduced to pulp and pressed to an even surface. For this purpose they employed the inner bark of the bamboo, and afterwards, to a limited extent, cotton and linen rags and rice straw. The first paper mill was established at Hertford, in England, in the early part of the 10th century, and another in the latter part of the same century at Dartford, in Kent. In 1713, great improvements were made in the manufacture of paper by Thomas Watson, but it is only in recent times that the manufacture has attained to its highest excellence. The intellectual and commercial progress of the present century requires to be fed with an enormous and constantly increasing supply of paper. The only material heretofore regarded as capable of being reduced and pressed to the required firmness having been rags, the greater proportion of which consumed in this country are imported from abroad, the expense of the manufacture of paper has always been large. The substitution of some cheaper and more available article in the place of rags, has long occupied the attention of inventors. Experiments have therefore been made with bark, stalks, tendrils, hop vines, wheat straw and wood fibre and shavings, but with only partially successful results. Several patents of this kind have been granted by the United States, but none of these inventions have proved of such general application as to bring them into popular use. But at length the result so long sought for, has been achieved by the Chevalier Auer Von Welsbach, a native of Austria, Director of the Imperial printing establishment, at Vienna, and Superintendent of the Imperial Paper Mill, at Schlogelmuhl. He has succeeded in making from corn husks, corn stalks, &c., every variety of paper from the finest tissue, letter and note paper and the strongest and best drawing paper, down to the coarse but tenacious kinds used in hardware—every intervening grade being produced by the same process. The drawing and tracing paper for artists purposes, are regarded as superior to any before known, whilst the post, fancy, and colored papers, compete successfully with those made from the finest rags. The improvements thus introduced by the Chevalier Von Welsbach, possess to our agriculturists a peculiar and important interest from the fact that Indian Corn is so largely grown in this country, and that it is the least valuable portion of this product that is thus brought into commercial use. By this discovery the very refuse of our corn fields becomes a valuable part of the crop. In these neglected stalks and husks of Indian Corn, "are combined three of the more valuable materials used in our manufacturing industry."

By the Austrian process now under notice there is produced—1st. A fibre for textile fabrics similar to jute and hemp, but greatly superior to jute, and presenting many of the qualities of wool and cotton. 2d. A pulp for the manufacture of paper in all respects superior to that made from linen and cotton rags. 3d. A gluten that can be used like oil cake as a food for animals, and can also be employed in a great variety of manufactures." The utilization of these three products of maize at the least possible expense was originally due to one Moritz Diamant, a native of Bohemia, but the perfecting of the process was brought about, as we have stated, by the Chevalier Auer Von Welsbach. It was the latter that completed and carried out, to an eminently successful result, what the former had commenced. It is one of the great advantages of this new process that it requires no alteration in the present machinery of paper mills, as the maize stock is used precisely in the manner for reducing to pulp as is the stock from rags. This maize stock after having been pulped in the usual way, is manufactured as in the case of rags, in moulds, &c., according to the quality of paper required, and the paper so formed is dried and pressed until the particles are so felted together that they cannot be separated without tearing. If the capability of making paper from maize had been the only discovery of the Chevalier Von Welsbach, the process would have been found too costly for practical use. The corn plant, however, was fortunately found to yield certain other products in the following proportions:

20 per cent. of short fibre suitable for making paper.

25 per cent. of long fibre which can be spun like flax into thread, and woven and bleached into coarse fabrics, for crash towelling, bags, cotton baling, and all that variety of covering for which jute and hemp are now employed.

15 per cent. of gluten which can be used as food for cattle, and is also valuable for manufacturing purposes, and for distillation.

This gives but 40 per cent. of loss, and this loss is further reduced by using a portion of the waste as fuel to feed the furnaces.

The report of the Agricultural Department, for 1863, estimates the waste at 60 per cent., but improvements in the process have since been made whereby a part of the original loss has been economized, and the amount of manual labor employed very materially reduced.

But taking the waste as estimated in the Agricultural Report, at 60 per cent.—which is now acknowledged to be far too high—the estimate of expenses and receipts, as given in the report alluded to are summed up as follows:

Cost of extracting the fibre from 6250 tons of maize husks and stocks:

Coal and other materials,	15,705$
Labor,	6,400
Interest and Loss,	4,296
Raw Material, including local freight,	80,000
Other expenses,	3,095
Total,	$109,496

RECEIPTS.

40 per cent. of produce is estimated at the following values:

10 per cent. of spinning fibre,	$64,000
19 per cent. of paper stuff,	72,200
11 per cent. of Gluten for animal food, &c.,	15,400
	$151,600
Deduct Expenses,	109,496
Net profit,	$42,104
The additional 20 per cent. since economized, if it should be practically realized hereafter, would add to the above	30,320
Total profit,	$72,424

But putting the actual profits at the lowest figures stated in the Agricultural Report, we submit that the per centage of profit is as large as any manufacturing corporation could desire. The cost of the machinery for reducing the fibre and preparing it for market is not more, we understand, than from five to eight thousand dollars. Such is the new manufacture which the American owners of the patent are inviting capitalists to embark in, and from all that we can learn concerning it, the enterprise seems to us eminently worthy of their attention. As the maize paper, specimens of which are now before us, has already largely taken the place of that manufactured from rags in Austria, under far less favorable circumstances than it can be produced in this country, the cost of the raw material and of transportation being infinitely heavier, whilst the long fibre and gluten are likewise of great commercial value, we confidently look forward to the day when mills for the various manufactures from corn refuse will be established throughout the country, and the farmer find a large profit in what he has hitherto regarded as comparatively worthless.

As all the above calculations are based upon an estimate of twenty dollars per ton for corn stalks, it will be seen that if this product should bring but six dollars a ton, it will yield to the farmer at least twelve dollars to the acre, and will thus cover all or nearly all the expenses of the corn, leaving the grain and leaf fodder clear profit.

Whitewash.—White fences and outbuildings indicate the thrifty farmer and a tidy household. Put half a bushel of unslacked lime in a clean, tight barrel, pour over it boiling water until it is covered five inches, stir it briskly until the lime is thoroughly slacked, then add more water until it is as thin as desired, next add two pounds of sulphate of zinc and one of common salt; then apply with a common whitewash brush, giving a good coat in April and October, or at least once a year.

CULTURE OF THE GRAPE.

The failure of the Grape crop in this latitude, for several years past, has disheartened many that had entered with some degree of enthusiasm into its culture. We are sorry for this, as we desire to see the grape culture widely extended among us, and any check put upon the earlier attempts to make vineyards profitable is a serious matter. We have had a good deal of experience in the culture, and whilst we have suffered in common with our neighbors, we nevertheless do not think a bad season or two a justification for abandoning the cultivation altogether. With all new beginners too, there is a great deal to learn, and this knowledge can only be acquired by gradual observation, and by comparison with the results obtained by others. That the grape culture can be made profitable, we feel assured, and we are also satisfied that we must change, in a measure, the processes adopted in Europe, so as to meet the differences in climate and especially the greater changes of temperature that occur with us. We were very much struck with the fact a few years ago, that in the vineyards near Cincinnati whilst those that had been kept very free of grass or weeds suffered severely from mildew, others in which the grass late in in the season had been permitted to grow, escaped the disease almost entirely. We do not speak of this as an incentive to slovenly culture, but as a recognized fact and as suggestive of a remedy. For the *oidium* we now know that sulphur is a specific, but it may well be that if the care taken in the early part of the season, to keep the vineyard free of weeds, and the soil loose were to allow also of a cessation of labor in this respect, after the seeds are formed, and during the period when the vine is maturing its fruit, it is possible that the disease may at least be checked, so far as regards its worst ravages. We do not of course offer this as advice, but as a suggestion which might be tried on a small scale, and thus bring the matter to the test of experience. It must not, however, be supposed that in any of the older countries the grape is a certain crop at all seasons, or that the quality of the fruit, or that of the wine made from it, is similar from season to season. The very reverse of this is the fact. The grape is more influenced by atmospheric changes, than any other fruit; and yet, taking one season with another, we believe it to be as profitable a crop as can be grown. Even with respect to so hardy a crop as that of the apple, we do not expect two full crops in succession, and a regular succession of full crops is a thing unknown. On the contrary we speak of one year as "the bearing year," and of the next as a year in which there will be but a comparatively small show of fruit. The grape then, as compared with the apple, is more certain—the average annual yield is more abundant, whilst the difference in profit per acre is enormously in favor of the grape. We point out these facts because we do not wish that our grape culturists should be discouraged. The enterprise is a new one with us, and as new varieties of grapes are tested and sanctioned by the approval of judges, as capable of being made a valuable addition to our established list of table fruits, or in the manufacture of wine, the demand must necessarily increase with the increase of population. Here is this further incentive to the cultivation of the grape. We have imposed extraordinary duties upon foreign wines to meet the current expenses of the government, and the interest upon the public debt—this tariff acts as a complete protection to our vine growers, and is likely to do so for many years yet to come. Of course, our native wines of good quality will necessarily be brought largely into use in consequence, and also native brandies. We have thus, in addition to the market demand for grapes, the best qualities of which already bring high prices for table use, the annually increasing demand for wine making purposes so that the cultivation of the grape cannot fail to be remunerative under the even adverse circumstances of occasional bad crops. To suppose that the grape would not be subject to the same laws that govern its product elsewhere would be folly. We must take it as it is and by observation and experiment seek to modify those influences that render it liable to disease whilst guarding against those changes of temperature that affect the quality of the fruit. We have thrown out these brief observations for the purpose of exciting inquiry, and also to encourage our vine growers to persevere until they have conquered, as far as skill and intelligence can do so, the difficulties that beset their new enterprise. We believe those difficulties are for the most part of a class that can be gradually, if not immediately, and successfully overcome.

Rolling Grain.—The practice of rolling grain in the spring is not as general as it ought to be. Now and then the winter and early spring have been so favorable to the crop as not to make rolling necessary. But in three seasons out of four it *is* necessary and doubtless adds considerably to the productiveness of the crop. The thawings and freezings of the ground, throwing or spewing out the roots and exposing them to the drying winds of March, very seriously affect the crop. Passing a roller over it as soon as the soil is fit to enter upon, presses back the roots into their beds, and give them a fair grip again upon the support on which the crop must depend.—*Germantown Telegraph.*

The proudest man, as well as the greatest, will stoop to a flower.

BROOM CORN:

Its Culture, Harvesting the Crop and Fitting for Market, &c.

Broom corn is a native of India, and its culture is said to have been first introduce into this country by Dr. Franklin, who saw an imported whisk of corn in the possession of a lady in Philadelphia and while examining it, discovered seed, which he planted, and from this source its culture spread.

There are two varieties grown—the high stalk and the dwarf. The Dwarf corn is not so extensively cultivated as the former, but it is claimed to yield a good quantity of brush of extra quality and to be easier harvested as it is not necessary to "break it down." Some cultivators claim they can get an annual yield of 800 pounds of brush per acre from this variety. Along the Mohawk Valley in the State of New York for a distance of more than sixty miles, Broom corn has been grown many years in patches here and there, and, in some places, embracing large tracts of land. On these flats along the river, which are annually overflown, the crop has been grown, year after year on the same lands, and often without a particle of manure applied to the soil, beyond what is received from the annual overflow of the river. The Dwarf corn is not generally grown in this section.

THE SOIL AND ITS PREPARATION.

Broom corn flourishes best on rich sandy loams and upon alluvial soils. On gravelly uplands and tenacious clays the plants cannot be grown successfully, as the brush is liable to be coarse, crooked and scrubby. The land should be free from stones and of a character to be easily worked and kept mellow.—Plow early in spring and work with cultivators or drags until the soil is thoroughly pulverized, then roll it smoothly, so that a nice even seed bed may be had. Good crops are raised upon the inverted sod when the land is of suitable character and has been well prepared. Sod land has this advantage—there is less trouble from weeds. The plant is of a different genus from Indian corn and will not mix with it; but like Indian corn, it will pay well for composting and good cultivation. It should not be planted on wet, cold land.

SOWING THE SEED.

The land being nicely prepared, the seed is generally sown as early in spring as the condition of the ground will admit.

Broom corn will not endure so much cold as Indian corn and therefore should not be planted so early as that crop is sometimes put in. It is of slow growth and requires warm weather in order to the formation of its lateral roots. In New York State where the crop is extensively grown, the usual time for planting is from the middle of May to the first of June.

The seed is planted in rows from two and a half to three and one-half feet apart. Three feet between the rows is regarded by many as the proper distance to get the best results. A drill worked by a horse and which plants three rows at a time, is in common use.

When the seed has been prepared, by running through a machine, so as to separate and clean it properly, from two to three quarts will be sufficient for an acre.

CULTIVATING.

The seed germinates very slowly, and the plants at first look very small and spindling. Sometimes three weeks will elapse before they show themselves above the ground; but as soon as they are seen, go along with hoes between the rows, cutting out the weeds and grass. It is important that the ground be kept perfectly clean and free from weeds and grass; and sometimes if the ground is very weedy, it will be necessary to go through with hoes two or three times before the plants get large enough to admit of cultivating with horse hoes and cultivators. The hoes are kept sharp and a file is usually taken into the field to put on a good edge from time to time. The first time you go through with the hoes, the earth is pulled from the plants. The plants are thinned out in the rows, so that there will be one stalk in every four inches. When the plants get up a foot high, the horse hoe is run through the rows, throwing the earth towards the plants; and as they increase in size more earth is thrown towards them, which complete the operation of hilling.

The amount of work to be done in cultivating, will depend upon the condition of the ground. It must be kept mellow and free from weeds and grasses. After the plants get fairly started, their growth is rapid. When the ground is not weedy, nearly all the work of cultivating can be done by horse power and the various devises in use for this purpose.

BREAKING DOWN, CUTTING, &c.

Broom corn grown for the brush is not left to ripen but is cut green. As soon as the brush gets fairly out, the men go along between the rows and bend down or break the stalks just above the upper joint say about 10 inches below the brush. The brush then is easily cut, which is done at once, the stalk being cut off within six or eight inches of the brush. The brush is deposited in bunches, and a wagon is driven through, when it is gathered up and taken at once to the stripping machine.

It is important that the brush be cut before it is touched with frost and when it has a nice green color. Frost injures the quality and color of the brush, rendering it unsaleable.

STRIPPING THE BRUSH, DRYING, &c.

The seed is stripped off by a machine having a revolving cylinder driven by horse power. The cylinder has spikes driven into it and projecting about a couple of inches, and as it revolves the brush is held so as to be rapidly cleaned of the seed. The brush

is then taken into an open, dry house and spread upon slats to dry. It is turned, from time to time, and if the weather is good will dry out and cure in a couple of weeks. After it has become thoroughly cured and dry, it is packed in 50 pound bundles and is ready for shipping to market. When it is designed to ship for any considerable distance, the bundles are packed and pressed and then tied so as to be compact and readily handled.

In all the operations with the brush, before it is cured, care must be taken that it be not piled together in any considerable quantity, so that it will heat, since this would destroy the color and injure its sale.

THE SEED.

The seed stripped off is not ripe. It is damp and being collected in considerable quantities, soon heats and becomes worthless for any purpose except manures. Along the Valley of the Mohawk this seed is generally thrown up in piles and allowed to rot.—Sometimes it is spread out upon floors to dry, and when properly cured is used as food for animals and for poultry. When it is designed to save seed for planting, the corn is allowed to stand until it ripens, but in this case the brush is of little value.

VALUE OF THE CROP.

The quantity of brush raised to the acre will depend, of course, upon the fertility of the soil where it is grown and the manner of cultivation. Along the Mohawk from 600 to 800 pounds per acre are considered a fair crop. Some get a thousand pounds per acre. The market is somewhat fluctuating.—Some years ago broom corn brush was as low as three cents per pound; last year it was worth 28 cents and it is now worth, we believe, from 12 to 16 cents per pound. Doubtless, the most profitable way of disposing of this crop, is for the growers to hire an experienced broom maker and work the brush up into brooms.

Broom making is no very difficult matter and an experienced hand will take a lot of men who know nothing of the business and teach them the art of broom making in a very short time, especially if they be handy and apt to learn. We have seen cultivators of the crop operate in this way and make handsome profits.

In 1854, Mr. Elihu Smith, of Sunderland, Franklin county, Massachusetts, reported to the Board of Agriculture of that State, the following estimates as to the value and expenses of a crop of Broom corn raised on one acre and nine rods of ground.

1,025 pounds of brush at 10 cents	$102 50
67 bushels seed at 40 cents	26 80
	$129 30

EXPENSES.

Plowing, Harrowing and Planting	$2 50
Manure	12 00
Hoeing	7 00
Harvesting, Scraping and Cleaning Seed	10 00
Interest on land	7 00
	$38 50

Making a net profit of.....$90 80

We have given some of the leading features connected with Broom corn culture as practiced by old and experienced growers of the crop. We have no space for an extended essay on the subject, but presume the foregoing hints will be a sufficient guide to those of our readers who may desire to enter upon this branch of farming and who have had no experience with the crop.

ON GRASSES.

Hon. Harris Lewis, of Herkimer, at the late Dairymen's Convention read the following statement on grasses :

Grasses for hay or meadows on good soils—June or blue grass, timothy, orchard grass, redtop, smooth stalked meadow grass, tall fescue, and fowl meadow grass.

For pastures on good soils—Clover, red and white, smooth-stalked meadow grass, timothy, orchard grass, meadow foxtail, sweet-scented vernal grass, and last, but not least, June grass.

For pastures and meadows on moist soils—Rough stalked meadow grass, red-top orchard grass, tall fescue, June grass, and floating fescue.

For soiling—Winter rye, lucern, red clover medium, tall oat-grass and millet.

For pastures and meadows on exhausted or wet clay soils—Red-top, couch grass, and quack.

Mr. Lewis said he was aware he should meet a fierce opposition in advocatiug the good qualities of quack grass. He said it was the most tenacious of life and did better than timothy or clover for pasture. Quack grass would grow either end up on the poorest soil, and even on rocks (provided the rocks be covered deeply enough with soil), or even in the best cultivated and richest gardens. Quack produced better hay than timothy for cattle. Mr. Lewis urged upon the attention of the convention the fact that nature never designed that timothy and clover should grow on every kind of soil. Soils that will not sustain these popular grasses will produce abundance of rich hay from other kinds of grass. On the subject of grain Mr. L. said he had not had experience lately in grain feeding. He had let his grain "go to grass" until his friends had called him a NEBUCHADNEZZAR of grass. After mentioning the different kinds of grain and their quality as food for milch cows he advised the feeding first oat meal, second oat meal, and third oat meal, thus expressing his opinion on the grade of grain for food.—*Utica Herald.*

BITTER MILK.—Bitter milk is caused by long standing. This takes place in winter; as in summer the milk gets sour before it has stood long enough to get bitter. To avoid this, use before it has stood too long; and in order to draw *all* the cream in that time, put your milk where it is warm —say 50 to 60 degrees. It is not only bitter milk that one gets—it is bitter cream and bitter butter—easily avoided if the above is followed.

Our Agricultural Calendar.

Farm Work for March.

We are now approaching the time when the field operations should be pushed with the utmost energy and vigor. March with its drying winds speedily leaves the soil in the finest possible condition for the plough, and the sooner the earlier spring crops are put in the ground the more certain, all things considered, will the labours of the judicious farmer be rewarded with a bountiful harvest. There are conditions, however, to be observed, for which no amount of forecast, in the way of expediting the spring work, can possibly compensate. Whatever crop is to be grown the soil must not only be put into good condition as respects deep ploughing and thorough pulverization, but it must also contain those elements of fertilization which are absolutely essential to the vigorous growth of the plants after seeding and during their progress to maturity. The yield of the crop is necessarily dependant upon the amount of plant food which the soil contains. That plant food moreover must be in a soluble state so as to be easily assimilated, for until it has been rendered available by rain and by those chemical agencies which are always at work in every soil, it is as valueless, so far as the growing corn is concerned, as if it were not in the soil at all. It is for this reason that in heavy soils lime acts so admirably, both as a solvent and as a mineral constituent, and even in lighter soils may be used with more or less advantage. It should be borne in mind, also, in the application of fertilizers that nitrogenous manures, or manures containing a large amount of ammonia whilst they are excellent in promoting the growth of the stalk and leaves, and therefore in giving vigor and sturdiness to the plant, have very little effect upon the production of seed. For the latter purpose potash and the phosphates are needed; the best fertilizer whether domestic or commercial, being that which combines in judicious proportions the nitrogen that stimulates the growth of the plants, and the potash, soda, lime and phosphates that enter into the composition of both the straw and the grain.

SEEDING DOWN TO OATS.

We took occasion last month to offer all the necessary suggestions in relating to this the earliest of spring crops. We gave analyses of both the straw and the grain, for the purpose of showing what inorganic substances entered into the composition of the ash. We showed that in a hundred parts of the ashes of this straw and grain there were twenty-four parts of potash, nearly fifteen of soda, rather over ten of lime, eleven of magnesia, sixteen of phosphoric acid, about six of sulphuric acid and seven of chlorine, and we gave in connection therewith several formulas for making composts, &c., with the proportions necessary for an acre of land. We said then, and recapitulate the substance of our remarks now, that Oats like a good stiff, rather moist soil; that a grass sward well turned over to facilitate by its rapid decomposition the growth of the land, will produce an excellent crop of Oats—the heaviest yield where the cultivation has been thorough, being more reasonably counted on from fresh soils newly broken up, and from old pastures. We remarked, also, that the earlier Oats are seeded after the frost is out of the ground, the larger in all probability will be the product—the coolness and moisture of early spring being peculiarly favorable to this cereal. Unlike Barley and Rye, the Oat suffers very severely from hot weather and drought, especially during the period when the seed is forming. To obviate this as far as it is possible to do so, deep ploughing should be resorted to, so that a supply of moisture may be stored away beyond the reach of the sun as the season advances.

When the ploughing has been completed, the harrow should follow first of all lengthwise of the furrow, and crosswise after the seed has been sown. Grass seed should then follow, which it is best to bush in and roll.

Quantity of Seed per Acre —Not less than two bushels of Oats should be seeded to the acre on good land.

SOWING CLOVER SEED.

If the wheat fields have not already been seeded down to Clover, let it be done as speedily as possible. Sow one peck of Clover to each acre, and if orchard grass is to be seeded with it use either one or two bushels of the latter—the larger quantity being decidedly to be preferred, as the grass does not grow as coarse, and heavy seeding checks the tendency to bunch. Before sowing orchard grass spread it on the barn floor and moisten it with water sprinkled over it lightly from the nozzle of a watering pot. Turn the seed over and shovel it into bulk, letting it remain thus for twelve hours before seeding.

WET LANDS.

If an opportunity offers, continue to drain any wet land that it is requisite to lay dry.

EARLY POTATOES.

Late planted potatoes in the middle States rarely produce heavy crops. The potato loves a cool moist soil abounding in potash, and hence new lands freshly rescued from the forest, and on which the brush has been burned, are the best for the potato. They have a method of keeping the soil cool through the growing season at the South by covering it

with a heavy covering of pine shatters, after the potatoes have been planted. It would answer here on a small scale, using straw and leaves instead of pine shatters, and covering the bed to a depth of not less than four inches when the covering has settled. In this case, the potatoes are not disturbed after planting until it is time to dig them. The weeds are effectually kept down by the heavy covering, and the ground remains comparatively cool and moist in the hottest weather. We have seen heavy crops grown in this way, and suggest it as worth a trial.

In planting potatoes according to the customary mode, plough deep for the purpose of retaining moisture in the soil, selecting in preference a northern exposure to a southern. The best compost for potatoes is one that is formed of one-third barn yard manure, and two-thirds woods' mould, or marsh muck, to which may be added with advantage 10 bushels to the acre of unleached wood ashes. After the soil has been deeply ploughed, it should be harrowed as finely as possible. Indeed the soil can scarcely be made too light, as the fine fibrous roots of the potato are thereby enabled to ramble freely in search of food. After harrowing lay off the drills three feet apart, spread the compost, or manure, in the furrows, and then plant the potato sets ten inches apart. The sets should be of good size, and for the largest yield, should be cut from well grown and well matured potatoes, of not less than three ounces in weight. Now ridge up the furrows with two bouts of the plough. When the potatoes are well up above the crown of the ridge, run a harrow across the ridges, and break the latter down. Two weeks later throw a furrow towards the vines, on each side, leaving the ridge thus made flat at the top to receive and retain moisture. The after culture consists in keeping the soil loose and free from weeds, in drawing occasionally fresh earth to the vines, and in stirring the intervals between the rows either with a shovel plough or a cultivator.

RENOVATING MEADOWS.

A meadow that has become hide bound, and is falling off in its annual yield of grass may be greatly benefited by a thorough harrowing, as early in the spring as the nature of the season will allow.—Previous to harrowing prepare a compost made of 10 bushels of wood ashes, 2 bushels of finely ground bone dust, 2 bushels of refuse salt, and 1 bushel of plaster to the acre. Broadcast it over the meadow and harrow lightly and roll.

COMPOST FOR ROOT CROPS.

Provide materials for a compost heap to be applied in March in drills, when Sugar Beets, Carrots and Parsnips are subjected to field culture for the winter use of stock.

LIMING CORN LAND.

The best time for liming land is when it is broken up for corn in the spring. See that the necessary preparations are made in due time. Ten bushels of refuse salt added to every 100 bushels of lime, and well mixed through the heap will be found to add greatly to the value of the application.

WINTER KILLED GRAIN.

Fields of wheat that have been partially winter killed will be greatly benefited by a light harrowing as soon as the ground has settled after frost—top-dress the field with 150 lbs. of phosphatic guano or a rich compost, and follow these operations with the roller.

Hauling out Manure.

Seize every available opportunity to haul out manure to the fields intended for corn. Heap the manure there *in bulk* until the time comes to distribute it, and cover each heap lightly with earth.

Fences and Gates.

See that these are in good order. If they are not put them in condition at once.

Care of Animals.

During this month especial care should be taken of all kinds of stock.

Implements and Tools.

Examine these once again, and be certain that they are fit for immediate use.

Out-Houses.

Cleanse and purify these inside and out. Whitewash them well, together with the adjacent fences.

Apple Orchard.

Scrape the trunks of apple trees that have become mossy or scaly. Wash both trunk and limbs with a mixture composed of a gallon of soft soap, 1 lb. of sulphur, and 1 quart of salt. If the orchard is in grass, loosen the soil carefully around the trees and spread thereon slacked lime at the rate of a peck to each tree.

Acid Stains.—These may generally be known by reddening black, brown, and violet dyes, and all blue colors except Prussian blue and indigo. Yellow colors are generally rendered paler, except the color of annato, which becomes orange.

These stains are neutralized by alkalies. A spot, for instance, on a woolen coat, from strong vinegar or sulphuric acid, may be entirely removed by applying a solution of saleratus. Apply it cautiously until the acid is exactly neutralized, which may be known by the restoration of color; and then sponge off the salt thus made by means of a sponge. Ammonia is better for delicate fabrics.

Sweet stains are chiefly occasioned by a little muriate of soda and acetic acid—which produce nearly the same effects as acids generally, and are to be removed in the same way, operating cautiously.—*Germantown Telegraph.*

Garden Work for March.

We cannot too strongly impress upon our friends the necessity of doing all the preparatory work in the garden at the very earliest moment the season will permit It may be thought that a week sooner or a week later will make no perceptible difference either in the crop itself or in its time of maturity.—This is not so. There are always contingencies to be guarded against and it is therefore most judicious to strike the proper season for planting so as to allow for those backening influences which are produced not unfrequently by sudden and unexpected periods of drought. All succulent vegetables require a moist atmosphere and frequent rains to bring them to perfection. Hence the necessity of early planting. The spring rains are indispensable to a vigorous growth of the plants and the more they are forwarded during the rainy season the finer the vegetables will be in point of quality, and the better in point of size and nutritiousness. For the first portion of the year rains are most frequent from April to the middle of June. After that we reasonably expect protracted seasons of drought in addition to the increasing summer heat.

Very little rain comparatively falls between the 15th of June, and the last week of August, and it is therefore of the utmost consequence that growth of the later maturing vegetables shall be such during the spring season as to enable them to withstand the subsequent drought and heat. As a means to this end deep spading should be resorted to—in addition to early planting, and whenever the dry weather sets in early and promises to continue for some time resort must be had to the watering pot. The best time for using the latter being after sunset. The work for the month is as follows:

Hot Beds.—We have already given in previous numbers of the *Farmer*, simple directions for the construction and management of hot beds and to the suggestions there offered, we refer those who are still without these useful adjuncts to the garden.

Sowing Seeds in the Open Air.—In the absence of hot beds young plants may be forwarded by selecting a warm plot of ground with a full southerly exposure and well protected from cold winds by a fence or wall. Top dress this space heavily with rich and well decomposed manure, dig it in deeply and rake it well until the soil is finely pulverized. Upon this bed sow different sorts of early cabbage, cauliflower, brocoli, egg plants, lettuce, radishes, &c. Rake the seeds in lightly and compress the soil about them with the back of a spade.

Peas.—A light loamy soil abounding in phosphates is best adapted to grow peas luxuriantly. If the soil is wanting in this particular, wood ashes, bones, and marsh muck, made into a compost and fermented with a small quantity of barn yard manure are a capital dressing. If the compost cannot be had use phosphatic guano. Spade the ground deeply, pulverize it well, rake all smooth, and then lay off the drills in double rows, three and a half feet apart and three inches deep. Drop the peas along the drills and cover with the rake. For the larger and later sorts, the rows should be placed somewhat further apart. To keep up the supply, drill in a few rows of peas every two weeks for succession.

Beans.—The Broad Windsor bean, except in a very cool and moist season does not succeed well in this latitude. If planted at all therefore it should be as early in the spring as the soil is fit for its reception. Sow in single drills two and a half feet apart and when the plants are full blown pinch off the tops, to set the lower pods and hasten maturity. The most suitable soil for this bean is a heavy clay loam.

Asparagus.—If a new asparagus bed is to be set out, the work should be done as early in this month as possible. Trench the ground intended for an asparagus bed to the depth of two feet—three feet would be still better—incorporate in the soil a liberal supply of manure mixed with a heavy dressing of refuse salt. Lay off each of the beds four and a half feet wide, and next make three drills six inches deep and fourteen inches apart lengthwise of the bed.—Place the young plants carefully in the drills a foot apart and be sure not to injure the tender fibrous roots. Cover to the depth of four inches. A sandy loam is to be preferred for asparagus. In the autumn clear off the stalks. Cover the bed with manure and top dress with refuse salt. In sowing asparagus seed the same process is to be observed except that the depth of the drills should not be more than half an inch.

Lettuce.—Set out Lettuce plants from the hot beds as soon as the soil is in good working condition.

Radishes.—Sow early in deep rich well manured sandy loam if possible. If not then in any soil which has been well spaded and finely pulverized. Sow in drills six inches apart and when the plants come up thin them out to stand two or three inches apart.

Beets.—The best soil for beets is a rich loam, rather sandy than otherwise. It should be deeply spaded and well pulverized. Make the drills fourteen inches apart and one deep. After soaking the seed for twenty four hours in tepid water mix a little sand with it and sow thinly along the drills. After the plants are well up thin out the weakest leaving the more vigorous a distance of six inches apart. Keep down the grass and weeds with the hoe, and occasionally loosen the soil about the plants as the season advances.

Carrots and Parsnips.—Never use long manure

with carrots and parsnips as it makes them fork.—Choose always rich and well rotted manure, spade it well in and make the soil very light. Choose, if it can be had, a sandy loam. Sow in drills fifteen inches apart and when the plants are a few inches high thin out the carrots to four inches apart and the parsnips to six inches. Weed between the young plants with the hand and use the hoe freely in the intervals during the growing season.

Spinach.—This delicious and healthy vegetable can only be grown to perfection on soil that has been made very rich. Use therefore an abundance of well rotted manure and dig it in thoroughly.—Drop the seed thinly in drills fifteen inches apart and when the plants are a few inches high thin them out to four inches. Sow every few weeks during the spring for succession.

Onions.—Sow onion seed about the middle of March. Manure the soil heavily, dig it deep and well and rake it fine. Draw the drills fourteen inches apart and one inch in depth. Sow the seed and cover. When the young plants come up weed them with the hand, and thin them out. At the first weeding draw a little earth towards the bulbs, and at the third or last weeding loosen it from them. They will be greatly benefited by a top dressing of wood ashes after the first weeding.

Celery.—To have celery early sow the seed in a hot bed and when the plants are about three inches high prick them out into a warm border covering them lightly with brush during frosty weather or with mats sustained by a rough frame work. In open air culture the celery seed should be sown in drills, in a well prepared bed as early as the season will permit. Cover with a thin covering of earth. When the plants are well up prick them out into another bed where they may stand until they are six inches high, when they can be transplanted into the trenches prepared for them.

Early Potatoes.—For the best method of planting early potatoes, see *Farm Work* in this number.

Rhubarb or Pie Plant.—This fine acid but wholesome pie plant should be freely cultivated in every garden. It is a hardy perennial. If seeds are used sow early in the spring in a seed bed but it is infinitely better to purchase a sufficient number of roots from a trustworthy nurseryman. A dozen roots will be enough for a moderate sized family. Set them in good soil well trenched, and in hills four feet apart enriched with half a bushel of well rotted manure. The second year from planting, a moderate supply of leaves may be gathered; but they should not be stripped closely until the third year. Top the plant as soon as it shows signs of running to seed.

Strawberries.—Clean off the strawberry beds early this month, and fork in a good supply of wood ashes with a very little thoroughly well rotted manure mixed with wood ashes. After the plants have been well thinned out and hoed, lay long straw between the rows to protect the fruit from beating rains. If the weather should prove dry water the beds at least three times a week choosing always the evening for the work.

Gooseberries, Currants, and Raspberries.—Trim these and fork in manure about the roots.

The Corn Grub.—The corn crop has several formidable enemies to contend with, and among them is what is commonly called the grub, which frequently damages the crop seriously. One of the best and most judicious remedies, perhaps the very best ever suggested, is the application of *salt* as soon as the plant makes its appearance above ground. Take one quart common salt, and three parts plaster or gypsum, and apply about a full table-spoonful *around* each hill, and it will be found to be a sure protection. The mixture should not come in contact with the sprouts, as it may destroy them. This method has been tried over and over again by some of the best farmers of Pennsylvania, Delaware and Jersey, and when properly applied, has never failed to be perfectly successful. We hope our farmers, who have reason to fear the depredations of the grub this season, will try this mixture, leaving a few alternate rows of corn without the salt and communicate to us the result. We are aware some writers say salt has no effect upon vermin, but we speak in this matter on the best authority.—*Ex.*

The Early Richmond Cherry.—The editor of the *Germantown Telegraph* informs a friend, who wants to know something about the cherry called the Early Richmond, that it is very similar to the Kentish or Pie cherry, of a pleasanter acidity, and from a week to ten days earlier. We have engrafted it with success both on the English Morello and the Pie cherry, and we suppose it will grow on other cherry stocks, though we see this denied. It is not as steady or abundant a bearer as the Pie, but is well worth cultivating for market, maturing, as it does, nearly as early as the Mayduke.

A man coming home late one night, a little more than "half seas over," feeling thirsty, procured a glass of water and drank it. In doing so he swallowed a small ball of silk that lay in the bottom of the tumbler, the end catching in his teeth. Feeling something in his mouth, and not knowing what it was, he began pulling at the end, and the little ball unrolling, he soon had several feet in his hands, and still no end apparently. Terrified, he shouted at the top of his voice, "Wife! wife! I say wife, come here; I am unraveling!"

A. P. ROUTT'S SOUTHERN CORN PLANTER, WITH GUANO ATTACHMENT.

This Corn Planter has been in u for several years in many parts o Virginia and North Carolina, an has rendered universal satisfactio It is recommended for its strengt and durability, as well as for th perfect manner in which it opens th furrow, drops the corn and fertili zer, covers and rolls at one opera tion. With the Corn planter a ma and horse can plant from 10 to 1 acres per day, together with an kind of pulverized Fertilizer.

Mr. A. P. Routt, of Liberty Mills Orange Co., Va., is the manufac turer, whom all interested may ad dress. Price $25.

Thinning Corn in the Hills.

Thinning should always be don as soon as practicable after the cor has come up. This is usually don at the first hoeing, but should b delayed till danger from the grub or cut-worm, is over. Unless care ful laborers are employed, many hills will be neglected. Superflu ous stalks may be removed at any convenient time, even in lowery weather, when the soil is to be work ed with cultivators or hoes. Th best manner of doing this is to cu them off close to the ground, wit a sharp knife, and drop them nea the standing corn. The stalks the should be removed from the middl of the hill, that the remaining plants may stand as far from eac other as possible; the farther the stand apart the larger the ears wil grow. When the stalks are pulle up, they will often loosen and breal the roots of those that are left, bu if cut off as directed, the roots die If care be not exercised in droppin only a proper number of kernels i a hill, much labor will be require to thin out a large field. Still it is better to do s than to allow five or six stalks to grow where ther should be only three, or at most four. There wi be more and better grain on four stalks than on larger number.—*American Agriculturist.*

Marsh Gas.—M. Boussingault, as stated in the *Comptes Rendes*, has discovered that under the influence of direct sunlight, the leaves of aquatic plants give off a notable proportion of carbonic oxide and carbureted hydrogen. He thinks that this emanation of carbonic oxide may be one of the causes of the unhealthiness of marshy districts.

Forgiveness, after the heart is broken, is pardo after execution.

COMMUNICATED.

OSAGE ORANGE HEDGES.

BELMONT NEAR CHARLOTTESVILLE, VA., February 20, 1867.

To Editors Maryland Farmer:

The season being now at hand to prepare for hedges, and thinking information would be acceptable, I will give your readers my observation and experience with Osage Orange hedges since 1853, commencing with the growth at one year old.

The seed may be planted and cared for in the garden or nursery, not unlike salsify, carrot, &c., and when taken up to plant out, they should be spaded up sidewise, the tap roots chopped off to about six to eight inches long, and the tops to a half-inch above the bleached part, or the part that grew below the ground. If some plants are stronger than others, it is best to classify them, that they may be attended to, to suit their more delicate growth, and the better to guard against a failure of the unpromising; to grow two near each other, would be advisable for the first year, when the least promising could be pulled up, or if both do well, one will do to transplant where needed, or in the garden till they may be wanted, it being *very* important the growth should start alike, as gaps are difficult to fill when the hedge is several years old.

If the row for the hedge admits of plowing, thus cultivating in each furrow so as to give the ground thorough tillage and manuring to be equal to the production of forty or fifty bushels of corn per acre, as well prepared as practicable for a corn crop, the width of ground from four to five feet, that the roots in two to four years old will not find the ground harder than it should be for their growth.

If the locality will admit, it should be cultivated with a plow, not going deep enough to damage the rapid growth of roots; if this cannot be done, then a liberal amount of hoe work must be done several seasons, till the side growth of limbs occupy the surface.

If it be necessary to plant too near a fence for plow work, then spade the earth over to a depth of twelve or fifteen inches, and at least three feet wide, mixing in what manure may be necessary, or if the fence row be of long standing, *it may not* require manure. The plants being shortened and the taps cut as mentioned, a line drawn, then open the furrow with a narrow or grubbing hoe some eight inches deep, and several wide at top, the plants dropped eight inches apart, then holding the top of each plant even with the top of the ground, the earth crumbled in with the other hand, and filled around and pressed down, leaving the top even with the surface. The ground settling will leave room for the growth of new wood, which will be slow starting, and should be tilled to keep clear of weeds and grass. The next March cut the plants off two inches from the cut of the last year, and when the growth is eight to twelve inches, cut off to two inches of the last, and continue this procoss *as often* as the growth makes it necessary, in order that the growth may be forced the sooner into the side growth, with the view, that in five to six years the hedge may be wide and close at the bottom, and of triangular shape, the top being brought to a ridge, and all the side growth getting its share of exposure to the sun, &c. The growth of new wood, at the age it should be cut, is quite soft and should be cut with a piece or a whole sharp old scythe blade, and with a little practice can be uniformly and rapidly done. The trimming should not be *delayed*, as the growth in the main stem robs the side shoots the more, and if not kept cut and clear of weeds and grass, the growth will tend upward and not a strong lateral growth. Missing plants should be replaced the second year, or sooner if discovered, being careful they get as fair a start as practicable, that gaps should not exist. Should the row be along a fence that stock may have access to, the first few years it should be guarded by obstructions at short distances to prevent the stock making a pathway of the cultivated ground and damaging the plants; finally the thorns will be a sufficient guard against all comers. I have planted at several periods, and have in all some two miles of hedge, and that planted the first year succeeded without the loss of scarcely a plant, but being directed to cut but once a year, it grew up six to eight feet high, cutting off at eighteen inches, the next, or third year, twelve inches was added, and in four years had almost a hedge, but too thin, when I was advised to cut back to within six inches of the ground. I did so, the growth was very rapid, and though cut twice a year it was not often enough, and it has grown up with more strength in the main stem, and less in the lateral branches than should be.

Hedges that have been neglected would be improved by *sawing* off at four inches from the ground, and fill the gaps by taking others from a given point or end of the hedge row, where newly planted work could be done and that part cared for to suit its age.

I have seen different varieties of hedges in this country and Europe, and have no hesitation in the opinion that the Osage Orange is the best hedge growth I ever saw.

It is hardy, easily raised, formidable even to Yankee raiders, turning them if without an axe. It is idle to plant unless it will be properly attended to; this is as easily done as to raise a corn crop of the same size.

The question will arise where the seed and plants are to be had;* of this I am not now informed, but will warn those who are thinking of planting, that there is much uncertainty in the seed, and I have preferred to buy one or two year old plants at from five to ten dollars per thousand up to 1860. The planting may be done from March to May, or early in June, provided the plants are not allowed to get too dry or too full of sap. For useful and ornamental and a lasting fence, and as a barrier to trespassers, it has no equal within my knowledge.

S. W. FICKLIN.

*Plants can be had of Randolph Peters, Newark, Delaware; Ed. J. Evans & Co., York, Pa.; Thos. Meehan, Germantown, Pa.; who advertised the same in late numbers of the *Farmer*.

TO DESTROY WOODCHUCKS.—Get a supply of arsenic from a drug store, and a quantity of small apples, and charge each apple with a half thimbleful of the poison by cutting out a plug from the apple, and after putting the arsenic in, plug the apple up again and the dose is ready. Roll these apples into Mr. Chuck's burrows as far as you can send them—half a dozen or so in each hole—and you will soon clear the camp and see no more of your enemy.—[Would not this be an expensive mode of destroying Chuck?]

FOR THE MARYLAND FARMER.

ST. MARY'S COUNTY---FRUIT CULTURE.

To Editors Maryland Farmer:

It has occurred to me that a word from "old St. Mary's," might not be entirely unacceptable to your columns, if not by enriching, at least by lending them a little variety—an item, by the way, I am not disposed to charge against them. But really we are pushed so far from the "Hub" of the State—which distance is by no means diminished by lack of railroads and ice embargoes—that I feared our very existence might be considered a myth were it not for our record as shown by your subscription books.

And this brings me to the query what has become of the "Washington and Point Lookout Railroad" of which so much was said and written a short time ago? Has it been consigned to the tomb of the Capulet's and there is to "sleep the sleep that knows no waking?" It is to be hoped not, for certainly there is an abundance of money in the country (*such as it is*) with which to build the road, and it seems to be generally admitted that few better investments could be found. The country through which it would pass abounds in wood and suitable timber for ties, &c.—thus placing the materials needed in easy reach and at small price—the grading would be extremely light—the expense of bridging merely nominal, and the great fertility of the soil in connection with its adaptation to the staple products of the country as well as for the culture of fruits and vegetables, would ensure a large amount of freight to sustain the road. Besides, the immense importance of the oyster trade, which has within the last few years grown to such magnitude that the value can scarcely be overstated, should alone furnish a powerful argument in favor of the speedy construction of the road. The supply of that article along nearly the whole route is boundless, and in point of quality will compare favorably with those of any other section of country in this or any other State.

Again. If the southern terminus were at Point Lookout, or near there, a constant outlet would be afforded, at all seasons of the year, for freight and travel from the North and West which is not uniformly the case from other points—our waters being very deep and salt, rarely freezing sufficiently to impede navigation. Baltimore and Washington could thus at all times be supplied with articles of luxury and necessity of which those cities in severe weather are frequently deprived.

There is certainly no section of our State more singularly endowed by nature with natural advantages than this peninsula—viewed in reference to the geographical position—its network of fine navigable water courses—its climate, varied soil, and great productiveness render it one of the most desirable regions of country to be found. But the scourge of war has passed over her, leaving its traces stamped upon her fair bosom—her labor system at one fell swoop was annihilated, and though energy prompted and spurred by necessity, has in a measure rallied her resources, yet it cannot replace the hundreds of thousands which went down with the "peculiar institution"—nor does a pliant currency and the thousand and one other evils that environ us have a tendency to cure the paralysis occasioned by the events of the past half dozen years.

We have an abundance of surplus land—its quality is good, and it can be bought on very reasonable terms—farmers are dividing and subdividing their large estates, and gentlemen from Delaware and other States north of us are coming among us to avail themselves of the resulting advantages. We want our population increased—we want our resources developed, and we want men of means and enterprize to do it. To such few places offer greater if equal inducements than old classic St. Mary's. Why, sirs, we have actually proven to quite a number of gentlemen from the North, now among us, *that we are not cannibals!*—they can, and will testify that during *their short but brilliant career* here they have only on very rare occasions seen an American citizen of African descent, (alias a nigger,) whipped to death—and the "oldest inhabitant" really disclaims any knowledge of any such occurrence ever having taking place. *Note here that this antedates Emancipation proclamations, Emancipation constitutions, &c., &c., &c.* Where we were denounced as heartless nigger drivers we are pronounced by our new neighbors as a kind, generous, hospitable people, and if modesty did not forbid, I might add more of that sort of talk—but let this suffice.

Allow me to call the attention of your numerous readers to the great advantages which this county offers for the successful cultivation of fruit, both large and small. For years back this branch of agriculture—if such it may properly be called—has been almost exclusively confined to the counties of the Eastern Shore and the great profits which have been realized from it are too well known to require comment here. That more encouraging results still would follow if fruit growing were made a *speciality* here as it has been there, is as unquestionably true as a mathematical demonstration. The soil is eminently suited and the seasons here being some two weeks earlier than there, of course the fruits could be put in market earlier and therefore command a better price. In addition to this we are about equidistant from Baltimore and Washington, with easy, cheap and frequent communication with either city by water, and the latter is perhaps the best market in the whole country for these articles. Here land carriage would be trifling in consequence of bold streams intersecting the country in every direction—there they frequently have several miles to haul their fruit to steam boat landings—these and many other considerations offer abundant evidence of the facts stated that this county could successfully compete with any of her sisters, and larger profits be realized by the cultivator. I am glad to be able to state that several have already embarked in this business and their experience—although not on a large scale, has borne out what they anticipated, and left some margin. These remarks apply to the smaller kinds of fruit as well as the larger varieties, although more attention seems to have been given to the latter.

There can be no reasonable doubt, Messrs. Editors, that this portion of Maryland is destined at no very remote day to be the "garden spot" of the State, and the indications point to fruit culture as one of the most potent agencies in that development which must soon mark the beginning of her rise. Let energy, enterprize, capital and an enlightened and educated system of improvement be employed—let every man cause two blades of grass to grow where only one grew before—let thorough cultivation supersede the superficial skimming of days of yore, and when the iron horse shall offer himself as an agent of transportation for our products, his *iron clad*

groans and thundering shrieks will too plain show that our capacity to produce is too great even for that monster in *engine form*—then our local luxuries will become necessities to many who now know them not, and with millions tributary to Southern Maryland, we shall be rich in the happiness of dispensing our bounties without stint and furnish an unparallelled example of human progress. SIGMA.

FOR THE MARYLAND FARMER.

FARMERS' GARDENS---No. 11.

TOMATO.—(Solanum Lycopersicum.)—This vegetable is one of the most important; and no other has obtained such popularity in so short a time. It is cultivated, not only generally, in small gardens and yards, but largely as a market product. It is served in a variety of ways, and in nearly every form, is highly esteemed. For canning it is extensively used furnishing an excellent condiment at the seasons of the year when other fruits are not to be had. There are a large number known under different names; some are claimed as much earlier than others, or as having some superior quality; others for other different qualities. As far as I have experimented or can learn, planted at the same time, under similar circumstances, and given the same culture, there is little or no difference in their time of ripening. *Culture.*—The Tomato is raised from seeds, which sould be sown in hot beds in March or early in April. They may be started in pots, in a small way, in a warm window. They should be started and forwarded early enough to be in season to transplant into the open air as soon as the spring weather will permit without danger of freezing: when the plants attain a good size, being healthy and strong, transplant to a light, rich, warm soil, four feet each way. Water freely at transplanting and shade from the sun for a few days till well established. When sown in the open ground, select a sheltered spot and pulverize the bed well and sow in drills ten inches apart, and thin to three inches when up so as to be distinguished; sow as early as the weather will admit of out door culture. When the plants attain a suitable size transplant to where they are to grow as before directed. Varieties.—*Large Smooth Red.*—Fruit somewhat flattened, inclining to globular in general outline; medium size; skin deep rich crimson; flesh bright pink, or rose color, one of the best for general culture. *Large Yellow.*—Said to be a subvariety of the Red Pear-Shaped, with a clear semi-transparent yellow skin and yellowish flesh: used for preserving and pickles. *Red Cherry* and *Yellow Cherry.*—Beautiful varieties, never exceeding two inches in length by one in diameter; used for preserving, canning, and pickling. *Feeje Island.*—Fruit large, bright red, sometimes ribbed; often smooth thick fleshed, or well filled to the center. *Cook's Favorite.*—Medium size, oval form, smooth skin, deep crimson, very productive, and excellent flavor. *Tilden's New Seedling*—A variety originating with Mr. Tilden, of Iowa; by some it is highly recommended as an early, very prolific, and excellent variety: by others as no earlier if as early as the other old kinds. P. Henderson, of N. J., says with him it proves no better than the *Early Red;* yet most of the seed catalogues describe it as much better than any other variety. Fruit large, roundish, or roundish-oval: skin smooth, glossy, and of a bright red; flesh remarkably solid. Bears abundantly, and keeps well after being gathered.

TURNIP.—(Brassica Napa.)—This is a wholesome and useful plant both for man and beast, and should be universally cultivated for both purposes. *Culture.*—The various sorts are all grown from the seed, which is sown where the crop is to grow. For early sow in drills fourteen inches apart and half an inch deep in good, rich, well prepared soil, as soon as can be done in spring. Thin the young plants to five or six inches apart. Wood ashes worked into the soil around the plants when the roots attain the size of the finger are excellent in preventing the ravages of the worm, etc. For the winter crop sow last of July or first of August. Always have the ground fresh dug before sowing. They should be cultivated sufficient to keep the soil open and free from weeds. Harvest before the ground freezes as freezing is apt to make them pithy, or corky; preserve in sand in the cellar. Varieties.—The catalogues give a long list of varieties; yet for general culture only a few select varieties find universal favor. *Purple Top Strap Leaf*—When well grown attains a size of five or six inches in diameter. Flesh firm and solid, free from sponginess, of handsome appearance; the lower two-thirds of the root is white, while the upper portion has a well defined line of purple. *White Dutch.*—An old sort, having nearly the same shape as the Purple Top, but entirely white, equally early and by some considered the best of all in flavor. *Yellow Aberdeen.*—An excellent variety, but later than the preceeding, bulb nearly round, of a dull yellow beneath and purple or green at the top. A very solid variety, keeping well through the winter.

RUTA BAGA, OR SWEDES TURNIP.—The leading varieties grown for family use are the Improved America and Laing's Purple Top. These require a deeper, richer soil than the common turnip and require to be sown in drills farther apart in June, or first of July. For late winter use they are considered better than earlier, as the flavor improves towards spring. They are very solid and hard consequently keep well. GIARDINERE.

TICKS AND LICE AGAIN.—The flower of brimstone sifted on cattle and combed in, opposite to the lay of the hair, is a sure, wholesome and effective remedy for cattle lice; a large tablespoonfull of the brimstone may be given every three days, while they remain affected; unguentum, placed about the roots of the horns, is often used but not desirable; lamp oil, wood and peat ashes, carefully sifted on, are very good remedies but not equal to the flower of brimstone; kerosene will, undoubtedly, kill lice, but kerosene is about as bad for the cattle as lice and never should be used. Tobacco water, is our remedy for ticks on sheep; fail not to apply it in season.—*Cor. Louisville Gazette.*

A lost song of Leigh Hunt's, and one hitherto unedited, has come to light. It was written and set to music nearly forty years ago. It is in four verses, the first of which we find room for:

THE LOVER'S VIGIL.

Mary, dear Mary, list! Awake!
And now, like the moon, thy slumbers break,
There is not a taper and scarcely a sound
To be seen or heard in the cottages round;
The watch-dog is silent, thy father sleeps,
But love, like the breeze, to the window creeps:
The moonlight seems list'ning all over the land
To the whispers of angels like thee:
O lift for a moment the sash with thy hand,
And kiss but that hand to me,
Mary—
O kiss but that hand to me.

FRUITS AND FRUIT TREES OF THE MIDDLE STATES:

Propagation, Influence of Stocks, Diseases, and Enemies.

BY WM. C. LODGE, CLAYMONT, DELAWARE.

THE PEACH

has become the most important as well as the most profitable fruit of Delaware. For many years we enjoyed the monopoly of the best markets in the middle or eastern States. The Messrs. Reybold planted thousands of acres, and their fruit was justly considered superior and accordingly commanded everywhere the highest prices. They freighted steam and sailing vessels for every important market within reach, embracing even those of Canada, on the St. Lawrence. The size attained by the trees, and their enormous crop, astonished all who visited them. It was supposed by many that the cultivators possessed some secret which enabled them to grow both better trees and superior fruit. Their secret was suitable soil and climate, and thorough cultivation. Failures were unknown in the orchards first planted, and it was not until the second orchards were in bearing that any deterioration was noticed in the quality of the fruit, or failure in the health and vigor of the trees. The second planting produced uncertain crops of inferior fruit, and the trees endured only half the period of those of the first planting. After the second crop of trees the decline was so rapid that peaches were rarely grown in the locality, except on plum stocks.

The orchards of Messrs. Reybold were located near the centre of New Castle county. Peaches were previously grown quite extensively in the northern part of the State, and the adjacent districts of Pennsylvania; but they had run out, while the Reybold orchards were in their prime. At the present time the finest peaches taken to the New York and Philadelphia markets are grown in the vicinity of Dover, (which occupies a central portion in the State,) and in the extreme northern section of the State, where for many years their cultivation was wholly abandoned.

What is know as the "peach district" is not confined to any one locality or neighborhood for more than a single generation of trees. It is progressive, moving from the north toward the south at the rate of about fifty miles in twenty years, when it again returns by a single leap to the place of starting. In other words, peaches are grown with complete success only after the ground has rested for a period of about twenty years; it having been found that intervals of such length are necessary, in order that the soil may become perfectly disinfected from all injurious qualities imparted to it by diseased trees, or that it may fully recover those peculiar constituents exhausted by the growth of previous trees.

The peach, when it fails upon its own roots, may be grown to a limited extent on the roots of the plum. We have heard of large crops being gathered from such orchards; but our own experiments with the plum stocks have not proved satisfactory. They may answer in a more northern locality, where the plum flourishes and the peach fails; but in our congenial climate and suitable soil for the peach, we have not found such substitution of general advantage. The peach will outgrow the plum stock, and when in full foliage, the high winds are apt to break it off at the place of junction. This may be avoided by budding below the surface of the ground; but in that case the borer will select the tender bark of the peach, where it unites with the plum, and at once girdle the tree. The plum stock gives the peach a deeper color, while it detracts somewhat from the flavor and renders the flesh more coarse. This may be accounted for from the fact that the sap of the plum starts later in the spring, and ceases to flow earlier in the autumn, than that of the peach, thus shortening its natural season and giving the fruit less time for the perfect elaboration of its juices.

THE APRICOT AND THE NECTARINE

are budded both on peach and plum stocks; but owing to the destructive attacks of the curculio, we seldom obtain a perfect crop of either fruit, unless when grown under glass. We have noticed that, like peaches, the plum stock gives the fruit a deeper color than when grown on peach roots, though the flavor is not perceptibly changed by its influence. The apricot is liable to injury from late frosts, as it blooms so early in the season. We have found it a good plan to set the trees on the north side of a wall or building, so that they may be shielded from the rays of the sun while the frost is upon them.

THE GRAPE

may be grafted either in the root or the extremities, though success is uncertain, owing to the thin bark and porous quality of the wood. Large vines are sometimes grafted by cutting them off at the ground and boring holes in the stump, in which are fitted the scions with the bark on them. The soil is then drawn up and pressed about them, leaving only the top bud uncovered. The other buds, if any, can strike root and assist in the growth of the vine. Seedlings make the best stocks for grafting, as they are furnished with better roots than slips or layers.

It may be here remarked that grafting is most successfully accomplished when the stock and scion nearly approach each other in general character, as the Catawba and Diana, the Isabella and Concord; while there is little sympathy between the more highly improved varieties and common chicken or frost grape, and none whatever between the best kinds and the ordinary wild, sour grape.

THE INSECTS

injurious to fruit and fruit trees are not numerous in variety, but so destructive as to render fruit growing a precarious business in many parts of the country, and even to cause the cultivation of many kinds to be wholly abandoned.

The *caterpillar* is hatched in the early spring from a collar of eggs deposited around a branch the preceding summer by the mother butterfly. It begins to feed upon the tender leaves of the apple and some other trees as soon as they appear, and increases in size and capacity for destruction with the growth of the foliage, destroying it as fast as it grows. When numerous, it has been known to strip whole orchards of their leaves, thus destroying the fruit crop for the season, and sometimes proving fatal to the trees.

The *remedy*, however, is efficient and easily applied. In the early morning, while the due is on the foliage, sprinkle fine air-slaked lime freely over the tree. The caterpillar will drop almost as soon as touched by the subtle dust, or perish while holding to the leaf. The same remedy is equally efficient in regard to the *thrip* of the grape leaf, and the *slug* that depastures upon the foliage of the cherry.

While the caterpillar is depredating on the leaves of the tree, the *borer*, a more subtle and dangerous enemy, is often at work at the roots.

The *borer* is the larva of a brown beetle, striped with white, which, like a thief, seldom shows itself in the day-time, but flies about at night in the early summer, and covertly attacks the tree near the surface of the ground, where it makes a small hole in the bark, deposits it eggs, and trusts to nature to hatch them into life. The young worm feeds at first upon the tender bark, until, growing larger and stronger, it strikes into the "pith of the matter," eating away the wood of the apple tree, so that it may fall before the first puff of wind, or die standing on its mutilated roots. This pest is also particularly fond of the quince, which can only be saved from it by closely watching. When the pear is worked upon quince stocks, it is necessary to set the roots below the surface of the ground for the security of the tree; otherwise, it will be sure to girdle the stock where the two woods meet.

The *remedy*—the only *sure* remedy we know—is the knife, and a pointed instrument to impale it in its holes. An application of ashes has been recommended as a cure; but we have tried it and found that it destroyed both borer and tree. Coal ashes or lime, applied judiciously, may be a preventive,—but so also is the earth drawn up around the trunk and pressed hard, so that the butterfly cannot penetrate it. Better than either is a small piece of oil-cloth tied tightly to the trunk of the tree, and drawn down to the ground where the lower parts are covered with earth, to prevent the insect reaching the bark.

The *bark louse* is a less formidable enemy than either caterpillar or borer. It attaches to the young and smooth bark of the apple and pear, sucking their juices and retarding their growth, until, finally, it destroys the tree altogether if not removed. A single washing with strong soap-suds will generally clear the tree of them, and restore its vigor, if attended to in time.

The *apple-worm* and the *curculio*, or plum-weevil, affect the fruit only. The first enters at the blossom, and feeds at the core of the apple, causing it to fall prematurely from the tree. The curculio is a small brown insect that stings the young and tender fruit, depositing its egg in the flesh of plum, nectarine or apricot, where it soon hatches and commences, in the larva state, to feed upon the fruit. It is so destructive that a tree loaded with young fruit will sometimes not have a single specimen left to arrive at maturity.

Remedies and preventives, in great numbers, have been tried with only partial success. Bottles, half-filled with sweetened water, are sometimes hung in the tree, and capture a few. Spreading a cloth on the ground under the tree, and then jarring the tree while the insect is partly torpid with the cold, in the early morning, will cause many to fall, when they may be easily destroyed. Strong-smelling herbs, such as tansy and elder-leaves and blossoms, or other nauseous matters not agreeable to the olfactory nerves of the insect, are hung among the branches, in hopes the insect will give them a wide berth. But the best preventive is to dust the trees with sulphur or lime when wet with dew. This method will sometimes keep the insect from the fruit if applied in proper season, taking care to renew the application whenever the rain washes the dust from the leaves and fruit.

(TO BE CONCLUDED IN OUR NEXT.)

A "TILT" TO BE REMEMBERED.

She wore a handsome crinoline the day when first we met,
And she scudded like a schooner with a cloud of canvas set;
As she swept along the pavement with a grandeur 'fit to kill'
Oh, we saw her but a moment—but we think we see her still

The wind was on a bender, and as saucy as a witch,
And played the very dickens with dust, dimity and 'sitch;'
The gaiters were delicious which her small feet scarce could fill,—
Oh, we saw her but a moment, but we think we see her still.

She scooted down the avenue, and streaming out behind
Her crinoline and muslin togs were romping in the wind,
To have kept them in position would have baffled twice her skill
Oh, we saw her but a moment, but we think we see her still

We shut our eyes tremendously—we did not want to see
A display of pretty ankles when it wasn't meant for me;
But until we lose our senses, regret we ever will
That we saw her but a moment—though we think we see her still.

PRINDLE'S AGRICULTURAL CALDRON AND STEAMER.

The above engraving represents a new apparatus, patented by Dr. Prindle, East Bethany, N. Y., and is adapted for cooking food for stock, hotels, workhouses, &c. &c., as well as a general heater, steamer, caldron, still, &c. The advantages as a combined apparatus for general farm use, especially for Stock Feeders, Dairymen, &c., as well as for all other purposes where heat or steam is required, has earned for it great public favor.

The great variety of uses for which this new apparatus is adapted, arise from its peculiar and simple construction and combination of a furnace, caldron and steam boiler, in a cheap, safe and portable form. The boiler is made of cast iron, in two sections, the lower one the Caldron, the upper one the Steam Attachment. Both sections are designed to be used separately or conjointly, with the furnace, or on the arch. Thus, the operator is not only enabled to use it for all purposes appertaining to the boiling processes, such as sugar, soap, lard, tallow, &c., but can change it in a moment's time to an enclosed boiler for generating steam, or gas, or for a still, &c.

As a steam boiler, it is peculiarly adapted to the cooking of large quantities of food for hogs, or other stock; also, for heating water, scalding hogs, steaming timber, boiling clothes, and cooking for man and beast.

With this apparatus, the farmer or stock feeder can greatly economize his time and fuel, prepare properly and convert all his coarse fodder, grain, vegetables, &c., into pork or beef, as may be, thereby saving thousands of dollars to the actual wealth of our country, as the best conducted experiments, both in Europe and America, go to prove.

Price according to sizes, ranging from $50 to $120.—They are on sale in this market.

Moore's Rural New Yorker, says of this machine: "The Agricultural Caldron and Steamer, invented by D. R. Prindle, of Genesee county, N. Y., was exhibited at our recent County Fair, and proved an attractive and important feature among the farm implements and machinery. The apparatus is compact and portable, and apparently fulfils the object of its invention in the best manner. We are glad to learn it is gaining favor with farmers and others who have witnessed its operation."

Salt for Gapes.—Every one has had their say about the gapes; now let me tell you how we manage this matter.—Formerly we fed the young broods with corn meal dough, losing more or less with the gapes every season. Latterly we have salted the dough, and now raise some two hundred chickens per season, without losing one from gapes or any other disease. The chickens are bright, vigorous and healthy, and always commence laying early in the fall.—Now we have some 40 hens, which give us an abundance of eggs. Farmers should not hesitate to adopt this plan.—*Cor. Country Gentleman.*

To Prevent Cows from Sucking Themselves.—Take a leather strap and make a halter and put some shingle nails in the strap that goes around the nose. File the points of the nails sharp, put the halter on the cow's head, and she will not attempt to suck herself the second time.—*Cor. Rural American.*

To Clean Paint that is not Varnished.—Put upon a plate some of the best whiting; have ready some clean warm water and a piece of flannel, which dip into the water and squeeze nearly dry: then take as much whiting as will adhere to it, apply it to the paint, when a little rubbing will instantly remove any dirt or grease; wash well off with water, and rub dry with a soft cloth. Paint thus cleaned looks equal to new, and without doing the least injury to the most delicate color, it will preserve the paint much longer than if cleaned with soap; and it does not require more than half the time usually occupied in cleaning.

Tobacco Culture.

MANURE FOR TOBACCO LAND.

An experienced grower in the West expresses the opinion that the tobacco of itself does not require much manure, if planted for the first time on otherwise good and rich soil, and that even animal manure will injure the tobacco for making cigars and for smoking; but he does believe that for the crop following the tobacco, manuring can not be done too early and too heavily. The manures are very different, and equally useful for the different kinds of tobacco. He classifies them as follows:

To be applied shortly before planting, and in equal quantities, for all kinds of tobacco; 1. Guano, 200 to 300 pounds to the acre; 2. Poultry-droppings, 400 to 500 pounds; 3. Green manure in any quantity; 4. Sheep-dung, 2 two-horse loads; 5. Cattle manure, 10 two-horse loads.

For chewing tobacco and snuff: 1. Sheep-dung, 10 to 12 loads per acre; 2. Cattle manure, 20 to 30 loads; 3. Horse-dung, 15 to 25 loads; 4. Hog-manure, 20 to 30 loads. The last two are useless for smoking tobacco, or for that to be used for cigars.

The first three manures (guano, poultry-droppings, and green manure) must be followed after the tobacco crop, by a plentiful supply of stable manure. The tobacco stalks themselves, rotted or burned to ashes, sown over the field before the transplanting, or in the planting furrows, will act as a good manure, but are not sufficient. In highly-worked farms, that is, where the soil is valuable, and can not remain idle, it will pay every way, to sow rye for fodder on the tobacco land, in the fall; this may be made into hay, or turned under as manure at the beginning of July, just as may seem most profitable. Deep ploughing for the rye, and afterwards for the tobacco, must not be forgotten.

As a rotation for tobacco, he recommends: first year, corn, potatoes, cabbage, or any hoed crop; second year, spring barley, with clover; third year clover; fourth year, the clover ploughed under at the beginning of June, and tobacco; fifth year, wheat, Nos. 1 and 4 to be manured. Or, if the richness of the clover is intended for wheat, which also pays well for this extra care, and if green rye is to be ploughed under for tobacco: first and second year, as above; third, clover; the third growth ploughed under, and wheat harrowed in; fourth, wheat; in the fall the field is ploughed, and rye sown; fifth, green rye ploughed under, and tobacco. Nos. 1 and 5 to be manured.

Or, if more wheat is desired, first, second, third, fourth and fifth years as above, and wheat the sixth year. Nos. 1 and 5, and if any way possible, No 6 to be manured. I consider the last rotation the best. It will give, in six years, three straw crops, which are much needed for manure. The grain crop of barley and wheat is sure, and it don't happen as in the second, that a hoed crop follows the tobacco, which is also a hoed crop. Tobacco is planted on the same field again in seven years, an interval long enough not to ruin the soil. The benefit for tobacco in this rotation, consists in the lasting qualities of the green clover and rye, ploughed under.—*Tobacco Leaf.*

Growing of Seed Leaf.

Reviewing the quality of the present stocks of seed-leaf in market, Messrs. J. S. Gans & Son give the following suggestions to growers:

"Pay, in future, more attention to the *quality* than to the quantity of the product. For fine seed-leaf you will always find a market. Unlike Kentucky tobacco and its kindred kinds, where bulk is more an object, as such descriptions contribute employment to our canals, railroads, and ships, your aim must be hereafter to produce 'a fine, silky wrapper,' and a 'fair, useful filler.' You can do this in favorable seasons, by not raising more than you can conveniently attend to. Pay proper attention, we repeat, to the curing, and select fairly into first and second class wrappers, and adopt the same method for fillers also. By so doing you will find the culture of tobacco more profitable than striving merely for quantity."

Salt and Ashes.—A correspondent of the *Prairie Farmer*, says:—From my own experience, I believe that a barrel of good ashes is equal in value to a barrel of salt, equal parts being used as food. I believe that hogs need a supply of salt and ashes as much as any other animal, and if they had had a constant supply always accessible, the "hog cholera" would not have been known.

I have never known a horse to have the cholic, bots or worms, nor become a "cribber" when a box of salt and ashes was ever in reach in his stall.

Measuring Grain by the Granary.—Every bin and granary should have a scale, or upright row of figures marked inside, showing accurately the number of bushels to fill it to each figure. This will enable the farmer to know at a glance how much grain he has raised, or has on hand.

Selecting Seed Corn.—Don't fail to select the finest and best ears of corn for seed. You can do this better while the crop is still standing in the field than to trust to chance after it is gathered or at the time of husking.

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THE MARYLAND AGRICULTURAL COLLEGE.

This institution will open for the spring session on the 25th of March. We are happy to be able to state that the difficulties which have so long embarrassed its unquestionable usefulness, have been removed, and that it now enters upon a new session with excellent prospects, and under the most flattering auspices. The college combines every essential for carrying out a complete course of literary instruction similar to that adopted in the best collegiate institutions, and in addition will furnish its students with every facility for acquiring an adequate knowledge of the theory and practice of agriculture. We cordially bespeak for this State institution the attention of parents and guardians, not only in this State, but in those farther to the South.

☞CITY SUBSCRIBERS will please call at the office of the FARMER and settle their bills for 1867, and thereby relieve us from the great labor and expense incidental to sending out bills of so small amount. We know it is neglect on their part—and we know also that they do not desire the FARMER to cease its monthly visits—nor do we. So come along!

STATE SORGO CONVENTION.

This body held its annual convention on Tuesday, February 12th, in Baltimore. The attendance was good, and the discussions and suggestions were engaged in freely by the members generally, and doubtless the proceedings will prove of interest to those who attended, or who are engaged in the Sorgo culture. In our next number we shall endeavor to present a full record of the doings of this convention, which we were prevented from doing this month by a heavy pressure of business.

J. Howard McHenry's sale of Horses, Cattle, Hogs, Agricultural Implements, &c.

Will be offered for sale on Wednesday and Thursday, April 3d and 4th, Mr. McHenry's entire stock of horses, cattle, &c., together with his large assortment of agricultural implements and machinery. It is needless for us to say a word in regard to Mr. McHenry's stock, as he is so well known as a breeder, more than call the attention of all interested to his advertisement in this number. Catalogues will be ready about two weeks before the sale.

Grand Distribution of Premiums.

To aid in the completion of St. Martin's (Catholic) Church, of Baltimore, a scheme of distribution has been devised towards raising funds for the same. Certificates are fifty cents, and can be applied for through the mail. We refer to the advertisement for the details, and the responsibility of the parties conducting the same. Persons disposed to aid this cause, can rely upon its being conducted with perfect fairness.

RECEIVED.

From John Saul, Washington, D. C., his descriptive catalogue of new, rare and beautiful plants.

From Jas. Pentland, Baltimore, his catalogue of selected roses, and other hardy plants and seeds. Send for catalogue.

From Ellwanger & Barry, Rochester, N. Y, catalogue of green-house and hot-bed plants, select bedding plants, &c., &c.

From Frederic William Wendel, Erfurt, Prussia, and Boston, Mass., his catalogue of Flower and garden seeds, &c., &c.

From John Knox, Pittsburg, Pa., catalogue of small fruits, &c.. Also, catalogue of Dutch bulbs, and other flower roots, &c.

PACKAGE OF CHOICE SEEDS.—We acknowledge the receipt of a parcel of choice Vegetable Seeds from James J. H. Gregory, of Marblehead, Mass., which we have distributed among out friends, and sown in our own garden.

AGRICULTURAL PAPERS.

The following we extract from a letter, on business, from a correspondent in Leasburg, N. C.: "I am a farmer now—I love farming—and all I ever learned has been from reading such books as yours, and experience. The agricultural books of this day contain many things good and practical, but generally for beginners or the unskilled, there is two much theory, and want of common sense by a great deal. Where is there in the whole country, a young man, who by *noting*, and remembering every article well, in an agricultural paper for *one* year, would be prepared to enter upon a farm and cultivate the usual crops the next? I mean, of course, a young man who has no practical knowledge of farming, and I assure you there are many such in the Southern States now, who are compelled to rely upon the tilling the earth for a support, who did not know, two years ago, the very first rudiments of cultivating a farm. My own experience has taught me how very ignorant a young man may be of farming, even when raised on a farm. When 22 years old, I could comprehend Greek and Latin more easily than common phrases on a plantation. But I have learned something since—not much, but very much in comparison with what I began with."

Building Lime Kilns.

John D. Evans, a correspondent of the *American Farmer*, makes the following suggestions on the subject of Lime Kilns:

Your correspondent, J. R. G., Christianburg, Montgomery county, Va., in the January number of the *Farmer*, writes for information in relation to lime kilns. Experiments on kilns for lime burning, involve both expense and skilled labor. The general forms of all kilns are similar; it is in the *small differences*, that are found the true causes of magnificent failures and success: To mark those small differences, and to make them plain, would require a volume, as well as a draughtsman. I would, therefore, recommend him, on the *score of economy*, either to employ the skilled labor of his vicinity in the plans in use there, or visit for a week or two some locality where different kilns and plans are in use, and observe accurately the forms and plans most approved of, taking particular care how he endeavours to improve them, unless he has money to lose. An apparently trifling change in forms I have known to produce a total failure.

I would recommend him to visit this neighbourhood, where he can see, in their most perfected condition, more different kilns and modes of burning, in full practice, than anywhere else I know of.—They are the result of long experience, talent and capital.

N. B. Paoli is twenty miles west of Philadelphia, on the Pennsylvania Central Rail Road to Pittsburg.

A man may have a great deal of manner and no manners.

GARDEN SEEDS.

A. W. Raymond, of Cedar Rapids, Iowa, communicates the following to the *Iowa Homestead*:—A few hints on seeds, drawn from the experience and observation of one who has made Market Gardening, in this State, his chief occupation for a number of years, may be of value to some of your readers. It is a notorious fact, that the seeds commonly found for sale in the stores are unreliable. The seed pedler leaves a box of seeds for sale—a small part are sold. Next year he takes up the box and leaves another. The first one is newly assorted with a few fresh seeds, and left with the next shop-keeper as *pure fresh seeds*, of last year's growth! This goes on from year to year, until the seed, never the best, is entirely worthless. All this vexation can be avoided, and better and cheaper seed got, with less trouble. There are men who make the seed business a speciality—whose interest it is to deal fairly with their customers. Postage is cheap now-a-days, and seedsmen send their goods post paid, and warranted to reach you, cheaper than you can ordinarily raise or beg them of your neighbors. They have facilities for furnishing a purer, better article. Each variety is raised in large quantities, in a separate location, from the best selected stock. I do not mean to be understood that we should not raise any of our seeds. Raise the bulk of them. But do not fail to renew the stock often from some good Seedsman. My word for it, it will pay.

Much of the success depends on sowing at the right time, at the right depth, in the right soil, &c.; but do not I beg you, sow in the moon, or by this or that sign. The exercise of good oommon sense, will be a guide to success in this, as in every other business. Plant hardy things, such as will stand the frost—early cabbage, lettuce, parsnips, onions, peas, &c. Tender things when the ground gets warm—tomatoes, peppers, melons, squashes, &c.—Largest seeds, deepest, smallest seeds, shallow, as a rule. Have the soil mellow and fine. Many seeds that are perfectly good, fail to grow from mismanagement.

High manuring is essential to good gardening.—I believe in manure, and have hauled manure three miles all winter.

A hot-bed is not so expensive or complicated, as most people suppose. It is of great advantage in starting those plants that we want early, or those that are late in maturing—as early cabbage, tomato, pepper, vegetable eggs and flower plants. A cold frame is a good thing also. Any agricultural paper, seed catalogue, or work on gardening gives directions for these.

Please do not omit planting plenty of flower seeds. Flowers seem expressly made to beautify and make home pleasant. They soften and refine the heart, and add much to the happiness of ourselves, children and friends.

SEEDING TO GRASS.

It is believed that the objection which commonly prevails in dairy districts against newly seeded meadows and pastures, would in great measure be removed by thick seeding. The coarse hay of new meadows is caused by the fewness of the stalks; and the same objection, no doubt, holds true with pastures. Sow the seed so thickly as to cause a compact, soft growth, and the land will not only yield a much larger amount, but the grass will be more delicate and palatable. The first position we have sufficiently proved by repeated experiment—a half-bushel of seed per acre giving more than double the returns from a half-peck.

A large amount of seed is frequently lost by bad seeding—either by not covering the seed, covering it too deeply, or with a hard and partially sterile soil. The difference between a perfect and a bad covering will be more than equal to the difference between a light and heavy amount of seed. Sprinkle the seed, for instance, over a smooth, mellow surface, and then cover the whole evenly with ¼ of an inch of finely pulverized compost—nearly every seed would be sure to grow, and in a few weeks the appearance would afford a striking contrast to that resulting from the common mode of treatment, viz: scattering the seed over a hard, rough surface, and leaving it uncovered, or else covering it so deep that it cannot grow. It is of importance to have a fine rich surface, not only to assist complete germination, but to accelerate the plants afterwards. We wish to propose an experiment for every farmer to try, and if he does not reap from it, by the practical demonstration it affords more than twenty-five dollars, we shall be much mistaken. First, sow his grass seed on his winter grain as usual, and let it take its chance.

Next, let him sow the same amount of seed for a given surface in the manner we have indicated; or if this is attended with too much labor, nearly the same results may be obtained as follows: Prepare the ground in autumn either by turning over with a plow, the wheat, oats or barley stubble, and making it smooth and mellow with a fine harrow. Then, before or during the early part of winter, give the whole surface a moderate and even dressing of fine manure.

The rains and melting snows will carry most of this into the top soil, and the remainder will keep the ground moist and mellow, and prevent baking. As soon as the soil is dry enough to work handsomely, and not before, sow the seed, and follow the sowing with a fine, even brushing, or with a very fine, light harrow, made by driving large cut nails, sloping backwards, through a plank harrow-frame. This process may be variously modified, according to circumstances,—the object being to place the grass-seed in a fine well enriched surface of soil, where it may be slightly and evenly covered. Perhaps a better way would be to harrow the surface lightly at first, sow the seed, and press it into the mellow surface by means of a roller. Land thus seeded will afford a handsome crop of grass the same year, and have the start, by at least one year, of many fields as commonly seeded at the same time on winter grain. These remarks will apply to timothy, clover, and other seeds.—*Country Gentleman.*

ZIPPORRAH COTTON SEED.

It is always a pleasure to us to give our readers any item of news relative to the advancement of agriculture; for upon this branch of husbandry depends, in a great measure the prosperity of all other branches of business. To make planting successful at the present time, there must be a proper and judicious use of those fertilizers best adapted to our soil, a rigid economy of labor, a thorough understanding of labor-saving implements and a wise selection of the most prolific seeds. The advantage of the use of the most improved cotton seed, was clearly demonstrated this last year on the plantation of General Graham, who informs us that he obtained a small quantity of the Zipporrah seed which produced a staple that brought, a few days ago, in the New York market, from one-half to three cents a pound more than the staple raised from the ordinary seed used by most of our planters. As an experiment, Gen. Graham informs us, that he used stable manure on half the seed, and Peruvian guano on the other half. The seed manured with stable manure remained green and healthy during the whole season, and produced the lint which brought the price referred to above, that portion manured with guano was seriously injured with the rust. We have a system of farming that has undergone but little change in the last quarter of a century, and we think it high time for experiments in agriculture as well as in other sciences, if it be a science, to be tested. Let the different kinds of fertilizers be tested, always planting the most improved seeds, and those best adapted to our soils and seasons preferred. We know that this course will cost time and labor at first, but in less than half a dozen years the results will amply repay for the trouble and expense.—*Marion Star,* (*Marion, S. C.*)

Nut Grass and Sheep Sorrel.

A correspondent writing from Deep Creek, Norfolk Co., Va., says:

"I have received the Farmer, and am very much pleased. I desire to know through your Farmer, from some of its writers, what will kill Nut Grass, as I am very much troubled with it in my garden, and also something about the killing of Sheep Sorrel—any information will be gratefully received by a young farmer."

Horticultural.

OUR FRUIT LIST.

We again present to our readers, as the time approaches for transplanting, a revised list of fruit trees, vines, &c., which we can recommend for general cultivation. One dozen varieties of pears, and six of apples, are all-sufficient, provided they are the best adapted to the soil and locality—a fact which each one, upon trial, must judge for himself. Frequently a pear, apple, or a grape may do well for a few years and then deteriorate; or may do excellently well in one location, and not in another, though separated by a very narrow space. In such case it had better be disposed of by grafting it with more reliable varieties. We have changed our opinion respecting a number of fruits within the last half dozen years, and yet in some of the instances we are convinced the fault was in the location and soil.

According to our present preference, we should select the following for our own planting, viz:

STANDARD PEARS.

1. Early Catharine.	8. Giffard.
2. Juliana.	9. Sheldon.
3. M.'s Elizabeth.	10. Buffum.
4. Tyson.	11. Anjou.
5. Bartlett.	12. Lawrence.
6. Seckel.	13. Potts.
7. St. Michael d'Archange.	14. Feaster.

Of the above, from No. 1 to 4 are summer varieties; from 5 to 10 autumn; 11, 12, 13 and 14 winter, thus affording a sufficient number for each of the periods, of the best known sorts for this region.

DWARF PEARS.

1. St. Michael d'Archange,	6. Boussock,
2. Bartlett,	7. Belle Lucrative.
3. Comice,	8. Lawrence,
4. Rostiezer,	9. Potts,
5. Diel,	10. Feaster.

APPLES.

1. Maiden's Blush,	5. Smith's Cider,
2. Baldwin,	6. Northern Spy,
3. L. I. Russett,	7. Fornwalder,
4. Jefferis,	8. McClellan.

PEACHES.

1. Crawford's Early,	4. Oldmixon (free,)
2. George IV,	5. Oldmixon (cling,)
3. Morris White,	6. Bergen's Yellow.

GRAPES.

1. Telegraph,	5. Rogers No. 4,
2. Concord,	6. Rogers No. 32,
3. Hartford Prolific,	7. Creveling.
4. Rogers No. 1.	

CHERRIES.

1. May Duke,	5. Germantown,
2. Early Richmond,	6. Belle Magnifique,
3. Black Tartarian,	7. Downton.
4. Black Eagle,	

We omit the Gov. Wood because it does not generally mature its fruit. A rain followed by a hot sun when the cherries are nearly ripe, will sometimes blast the whole crop. Its quality, however, is superior to all others. The "Germantown" is the largest cherry grown, is handsome in appearance, an abundant bearer of sound fruit, and very good in quality.

RASPBERRIES.

1. Brinckle's Orange,	3. Catawissa,
2. Hornet,	4. Philadelphia.

We cultivate all these varieties of the raspberry, in addition to the Hudson River Antwerp and the old Purple. We omit the Hudson River from our list, and substitute the Philadelphia. The Hudson River is an excellent berry, rather better in quality than the Hornet, which it resembles, though not so large, but it is not hardy or a good grower, and unless care is taken, will "run out" in a few years. The Catawissa is the two-crop variety, which every one ought to cultivate for the autumn crop only, by cutting all the canes clean off to the ground in November and covering the stools with manure.

STRAWBERRIES.

1. Russell's Prolific,	3. Hovey's Seedling,
2. Triomphe de Gand,	4. Albany Seedling.

At present we are not prepared to change our strawberry list. There are many new candidates for public favor, but for family use and market combined we know of none to be preferred to the foregoing. In retaining the Albany Seedling, it is done expressly for marketing purposes.

CURRANTS.

1. Black Naples,	2. Red Dutch.

We consider these the two best currants. We have the Cherry currant, which is larger than the Red Dutch, but it is too acid; while the White Grape, which is of good size and flavor, and transparent in appearance, is a poor grower, of a sprawling habit, and bears mostly near the ground, which dirties the fruit and extracts the flavor.

GOOSEBERRIES.

1. Houghton,	2. Downing.

These are the two best and most profitable cultivated. All the huge imported kinds are thick-skinned, tough, and sure to mildew.

BLACKBERRIES.

1. New Rochelle,	2. Dorchester.

The New Rochelle blackberry produces a better crop perhaps than the Dorchester, and the later ripened berries retain their flavor more entirely: but the first ripening of the Dorchester is sweeter and more delicious than the other. A new variety called the "Kittatinny," from the Kittatinny mountain, near the Delaware Water Gap, is well spoken of, but we reserve our opinion for the present.

It is better that those who intend to cultivate fruit and have to make purchases, should take this list with them to the nursery, and adhere to it as far as possible. It is not fair to the nurseryman to ask *him* for a list of the best sorts, as he has all kinds to sell to accommodate every taste and demand.—*Germantown Telegraph.*

THE CULTIVATION OF STRAWBERRIES.

Like all other small fruits, strawberries are cultivated in different ways by different men. Mr. Knox, of Pittsburg, Pa., grows this fruit extensively, and his method of cultivation is as follows:

He plows in the fall, land that has been cropped, follows with a subsoil plow, and in the spring plows again, in the same manner, just before setting the plants. He sets the plants in beds, running the whole length of the field, three rows to a bed, and the rows 18 inches apart, and plants nine inches apart in the rows. A space of two and a half feet is left between the beds, as alleys to weed the plants and gather the fruit in. Neither weeds nor runners are suffered to grow. In the fall, some time in November, the beds are covered with straight straw one inch thick, which is not removed in the spring. The plants shoot up through the straw, which now serves as a mulch, and keeps the fruit clean. Mr. Knox says that when his crop is gathered, the straw is raked off the beds and in the fall about one-half of what is used will be suitable to go on a second winter. He considers rye straw to be best, as it contains less seeds of weeds than that of wheat or oats. No manure is used, after the first preparation of the land.

At a recent talk about fruit at the New York State Fair, Marshal P. Wilder, of Boston, said he disliked to make large statements, but it was no uncommon thing to produce 4,000 quarts per acre of strawberries in the vicinity of Boston. The best method of cultivation is to turn over a piece of new land that never has grown the strawberry, and dress it with ashes. Plant in the spring, take only one crop and then plow up. This is the system very successfuly practiced at Belmont, in the vicinity of Boston. It is the perfect system. Growers generally get from 3,000 to 4,000 quarts per acre, and they bring the highest prices. Our standard of berries is high, and we are not satisfied with the Wilson. It will not bring in the Boston market more than two-thirds as much as some other kinds. The popular berry with us is Hovey's Seedling. It is a pistillate and requires skill in cultivation, but prodnces the most money.

Cultivation of the Cherry.

The Secretary of the Indiana Horticultural Society says in his report about cherries:

"In all the localities that I visited or heard from, the cherry crop is very fine. In this vicinity the Early May (Early Richmond) is principally grown, though there is quite a sprinkle in the Hearts, Dukes, and Bigarreaus, among some of our amateurs. The fact that these trees successfully withstood the severe cold of January, '64, should effectually dispel the idea that they cannot be successfully grown in this climate. The fact is, I think, fully established that it is *warm weather, not cold*, in the winter, that has always proved so disastrous to these classes of cherries. It is very successfully remedied by the low heading of the trees, or if the trees have high heads, or you prefer to have them so, by simply nailing together two boards of sufficient length in a V shape, and fasten them securely to the southern side of your trees during the winter; wrapping the bodies with a rope made of hay or straw, has been found to be excellent. Of course, all varieties will not succeed, with even the most careful management, just the same as some varieties of apples, pears, peaches, &c., which we know are hardy as classes, yet having many varieties that are too tender to rely upon.—The growing of this delicious summer fruit is as yet in its infancy in this State, but let us be glad to know that the planting of trees is rapidly extending. All tree dealers know that for the last three years, the demand has far exceeded the supply."

Fruit Trees.

At the January meeting of the Ocean county (New Jersey) Fruit Growers' and Farmers' Club, the debates opened upon the pear, and fruits generally. The secretary stated that a case had recently come to his knowledge, where a gentleman had enclosed a large number of fowls, by a high fence, upon a large area of ground; he had set out fruit trees in the enclosure, and the fowls used them to roost upon. The depression of the branches, by weight of the fowls, and the dropping, caused an unusually prolific crop of fruit.

Rev. Mr. Rhodes, gave a similar instance, which had come under his own observation, fully corroborating the theory contained in the statement of the Secretary.

Mr. Vail suggested that guano would strongly tend to the same desirable results.

Col. James had tied fruit branches down, so as to obtain fruit, with successful results.

Mr. John H. Applegate had a plum tree which was a poor bearer. He hung old iron to the limbs, which depressed the limbs, and the iron imparted a vigor to the tree, causing it to fruit bountifully.

The secretary stated that he had seen iron filings and scraps applied to roots of fruit trees in the Eastern States, with desirable success.

Curculio Trap.

At a late meeting of fruit-growers at Pittsburg, Pa., Dr. Hill, a successful fruit-grower at Alton. Ill., related the plan practiced by him to save his crop of plums. He never fails to save his plums and peaches in the manner described:

"He has large convex frame covered with canvas, something like an inverted open umbrella, with an opening on one side to take in the trunk of the tree. This is attached to a wheelbarrow, and thus easily moved from place to place. The curculio is brought down by jarring the tree, and passed down through a central opening in the canvas into a tin filled with some destructive fluid. Without this care, both his plum and peach crop is destroyed by the insect.—He plants these two kinds of fruit in alternating rows and as the curculio does not resort to the peach so long as the plum is at hand, he saves both by killing them on the plums."

Sow none but the best seeds. Keep none but the best stock. Use none but the best tools. Plant none but the best trees or vines.

SEASONABLE HINTS.

From the February number of the *Horticulturist* we glean the following hints:

Manuring Trees.—Too many, in applying manure to their fruit-trees, forget the position of the roots, and apply within a foot or so of the body. If they were to carefully remove the soil, they would find that trees of vigorous growth, and from seven to ten feet high, have roots, that are really the main sources of nourishment, varying from six to ten feet from the body. The application of manure, therefore, to give the best results, should be distributed around the tree from five to eight feet distant from the trunk. In positions where the turf is desired to be retained, cut and roll it back, put on the manure, fork it in lightly, and then replace the turf.

Coping to prevent Mildew.—A correspondent suggests that "one feature of action, in working of shelter overhead as a preventive of grape mildew, has not been touched, and that is, radiation of heat. It is well know that a plant radiating to the open sky cools off in half the time that another will when slightly sheltered by the projection of a wall. May there not therefore be more in the retention of heat, and more gradual cooling off produced from the coping shade, than in the prevention of dew? The value of these projections was known more than one hundred years ago, written upon, and practiced."

The discussion on Grapes, at the last Ohio Pomological Society's meeting, gave the Iona rather a bad character. Its hardiness was doubted, while a tendency to mildew and rot came forward as one of its characters in a majority of the reports. We think the manner in which a majority of the vines have been propagated has much to do with the tendency to disease reported, and believe that when plants are grown only from healthy, well-ripened buds, and have an opportunity to develop the full character of the vine, that it will prove a hardy and valuable grape—not perfection, as has been claimed for it, but one that few cultivators can do without.

Pruning, if correctly understood and practiced, is a useful operation; but if not understood, the operator will be likely to cause injurious rather than beneficial results. The *result* of every application of the knife to tree or vine should be thoroughly appreciated; it is therefore the duty as well as interest of every grower of fruits to acquaint himself perfectly in the knowledge of pruning.

Flower-Beds are much benefited, and the durability of flowers, together with their brilliancy, much increased where the ground is shaded as it were, or protected by a covering about two inches deep of peat soil, leaf loam, or moss from the woods.

Facts about "Pear Blight."—For twelve years I have been successful in raising pears. Dwarf and Standard never suffered any from "blight." Last year, and some the year before, I manured a piece of ground heavily, on which there were about fifty trees in good condition. The ground was well worked, and this year I had the mortification of seeing two thirds of all those trees taken by the "blight," and nearly all utterly destroyed. Another piece, containing about forty trees in a clover sod, escaped entirely, not a particle of blight on any one of the trees in the sod, and more or less "blight" on nearly all of the trees highly manured and cultivated.

A. F. S., *Moline, Ill.*

Plants in hot-beds are often destroyed by a too great heat, more especially on a clear, sunny day. Care should be taken to raise the sash, and to let in as much fresh air as possible, consistent with keeping up a requisite degree of heat for plant-growing. If one side of the sash only can be raised, on account of too great cold, let it be the upper side.

Roses that are blooming now freely will be greatly benefited by occasional waterings of liquid manure water. See that the foliage is kept clean; and while the plants have plenty of water, do not let them get soggy. If from any neglect your plant has become spindling and weakly in its growth, cut it all away at once down to three or four buds, give less quantity of water, and see well to the drainage.

Grapevines in the early vinery, which now begin to swell their buds, should be frequently syringed, and in other ways a moistened heat maintained. When there is a tendency of the vines to break only at the ends, bend them around until the buds have broken evenly, as they soon will do.

For small door-yards, or spaces of fifteen to twenty feet wide, when planting to improve, use flowering shrubs, of small habits of growth mostly. Occasionally a large growing shrub or second-class tree may be admitted, but avoid large-growing trees entirely.

Dress asparagus-beds freely this month with salt and about two inches deep of well-rotted manure, to be lightly forked in as soon as the frost permits working the ground.

Grape Cuttings in the propagating-house should now have considerable bottom-heat keeping the tops, or main temperature of the house, at about forty-five or fifty degrees.

Camellias in the window or elsewhere, if flowering freely, should have plenty of water, and the foliage frequently washed if they become dusty.

The outlets of surface and under drains should be examined whenever a thaw occurs, and any obstruction that may be, cleared away.

The Florist.

FLOWERS AND FLOWERING SHRUBS.

At this season of the year we have many inquiries as to a selection of the best flowering shrubs, vines, &c.; and it being too laborious to answer these singly, we append a list which will probably meet the wishes of most inquirers. It embraces our own experience and the experience of others, and may be relied on as far as it goes.

To the ladies, mainly, should at least be the directing duty in supplying yards and gardens with all that comes within the meaning of the comprehensive word, FLOWERS. And as the season for transplanting is now upon us and no time to be lost on the part of those who desire to take advantage of it, we append a short list of such "flowers" as every one who has a yard, garden or lawn, ought to possess and enjoy. Those who wish to extend the list can do so indefinitely, there being a large list in reserve, and every year gives birth to any amount of new wonders to meet the craving of the enthusiast.

The foregoing, or most of them, can be obtained at any well-ordered general nursery.

FLOWERING SHRUBS.

Pink Mezereum,	Persian Lilac,*
Dwf double-flower'g Almond*	The Althea,
Double Purple-Tree Pæony,	Colutea Arborescens,*
Chinese White Magnolia,	Chinese double-flow'g Apple,*
Soulange's Magnolia,*	Deutzia Gracilis,*
Sweet-scented Magnolia,	All the Spireas,*
White Fringe Tree,*	Snowball,*
Garland Deutzia, (*D. scabra*)	Dwarf Dogwood,
Broad-leaved Laburnum,	Pyrus Japonica,
Rose Acacia,	Euonymus, (burning bush,)
Tartarian Tree Honeysuckle,	Forsythia,*
Double White Hawthorn,	Philadelphus, (mock orange,)
Double Pink Hawthorn,	Symphora,
Fragrant Clethra,	Wiegelia Rosea,*
Oak-leaved Hydrangea,	High Bush Cranberry,*
Venitian Sumac, or Purple Fringe.*	Gordonii,*
Buffalo Berry,	Rhododendron, (for shady places,)
Siberian Lilac,	Mist tree.*

PERENNIAL PLANTS.

Dicentra Spectabilis,* Plumbago,* White and Pink Phlox.*

[There are from twenty to thirty common Phloxes, many of them dwarf, of beautiful colors and much admired.]

Campanulas,
Chrysanthemums, (summer and fall,)*
Double Hollyhocks,
Pæonias, (white and red,)
Iris, (pale blue, very fragrant,)*
Sweet William,*
Valeriana,*
Delphinium, (perennial larkspur,)*
Neapolitan Violet, (light blue,)*
Eugenie Violet, (deep violet,)
Schoenbrun, (deep blue, very fragrant and constant bloomer.)

CLIMBING SHRUBS AND VINES.

Some of the hardiest and finest climbing shrubs are the following:

Large Flowering Trumpet Creeper,
Chinese Glycine, (Wistaria,)*
Double Purple Clematis,*
Clematis Flammula, Florida and Sieboldi,*
Monthly Fragrant Honeysuckle,*
Chinese Twining Honeysuckle,
Yellow Trumpet Honeysuckle,
Scarlet Trumpet Honeysuckle,
Japan Evergreen Honeysuckle,*
Chinese Bignonia,*
Virginia Creeper,*
Periwinkle, (as a creeper for shady places.)

CLIMBING ROSES.

Queen of the Prairie,	Laura Davoust, (half hardy,)
White Multiflora,	Baltimore Belle.*

TRAILING ROSES.

Fellenberg,*	Baron Prevost,*
Glory of Rosamond,*	Noisette Superba,
Montrosa,	La Reine.

MONTHLY ROSES.

Hermosa, pink,*	Garibaldi,*
Cels, blush and pink,	Triomphe l'Exposition,*
Devoniensis, creamy white,	Monthly Cabbage,*
Archduchess, pure white,	Youland of Arragon,
Giant of Battles, crimson,*	General Jacqueminot,
Louis Philippe, red,*	Empress Eugenie,
Souvenir, blush,	Caroline de Sansal,*
Luxembourg, buff,	Madame Rivers,
Queen of Lombardy, d'p rose,	Pius IX,
Saffrana, yellow buff,	Leveson Gower,*
Daily, light pink,*	Madame Laffay.*
Prince Albert,*	

These will afford a succession of bloom throughout the season.

BULBS.

Snowdrops,*	Tulips,
Crocus,*	Dahlias,
Crown Imperials,*	Gladiolus.

[There are many varieties of these.]

AN ABSTRACT.

Persons whose premises may not require so large an assortment as is embraced in the foregoing list, should select those which we have marked with an asterisk, (*) as among the best in their class.

The foregoing, or most of them, can be obtained at any well-ordered general nursery.—*Germantown Telegraph.*

How to Propagate Dahlias.

I plant the bulbs in hot-beds, just as I would sweet potatoes; when the plants get up four or five inches, I cut them off down close to the tuber or bulb; these sprouts I cut up into little pieces, making the lower cut just below an eye. These cuttings I put out in sand, and they soon strike roots and grow. The tuber will send up other sprouts, which, when of sufficient size, are cut off and treated in the same manner. A large number of plants are thus made from a single tuber or root. By this method the finest flowers can be produced. If you plant the whole bulb, with one eye on it, the plants will grow very rapidly and strong, but it will all go to stalk and leaves, and the flowers will be indifferent. Most people plant out dahlias too early; the first of June is plenty early enough. The best flowers are those which are produced late in the season. The treatment of the plants, after they start, requires no special skill.—*Ex.*

EFFECT OF THE PERFUME OF FLOWERS.—The presence of the perfume of lavender in the air increases its power of absorption of heat sixty times, and anise seed 372 times; hence the perfume arising from a bed of flowers increases the temperature of the air around them.

Grape Culture.

GRAPE CUTTINGS—HOW TO CUT.

In making grape vine cuttings, none but well ripened wood should be used. Begin to cut at the small ends of the canes, have a sharp knife, cut each joint at one clip, the top end of the cuttings about one inch from the upper bud, and the lower end, that goes into the ground, as near the last bud as possible, and not injure it.

By leaving an inch, or more, of wood above the upper eyes, that will be a guide in setting them out, as the lower ends being cut close to the buds, show that such ends go *down*.

Boys are often employed at setting cuttings, and it is necessary to have them cut as above, so as to prevent setting them wrong ends up. It is sometimes difficult for grown people to know by the buds which end goes in the ground, when the cuttings do not show that, by being cut as above.

If one desires to set single eyes in the open ground, an inch of wood on each side of the bud is enough, and if a slight chip is taken off of the cutting, under the bud, the roots will shoot out sooner than if left as grown.

Grape vines can be propagated by single eyes, set horizontally one inch below the surface of a light soil, that does not crust over, or bake hard, by keeping them moist by hand watering, till July, when they will have sent out roots, and will be self sustaining.

Some varieties are propagated much more easily than others; yet we know of no kind but the Delaware that fails to grow, when set as above.—*Rural American.*

Growing Grapes.

The more we look at it the more we become convinced that a soil enriched with manure is hurtful to flavor, and lessens the fruit. There seems also a defect in ripening. Natural soil with a fair share of clay and lime, and deep tillage, we are convinced is the most successful way with grapes. Deep culture gives the roots a chance: moderate growth ripens, increases fruit, both in soundness and flavor. Hence, elevated soil, which is generally dry, airy and less rich, containing more clay and lime, with less vegetable matter—is selected for grapes. We grow more wood in the rich soil of the valley; but grapes and not wood is what we want. It is pretty certain too that we plant too close generally. The vine wants to be up in the air; that is its nature.—*Rural World.*

As a general rule, age makes the good better, and the bad worse.

PREMIUM FOR GRAPES.

The following liberal premiums have been offered by the Longworth Wine-house, of Cincinnati, O., to which we especially call the attention of all engaged in the grape culture:

Longworth Wine-house,
Cincinnati, February 23, 1867.

To the wine-growers of the United States, through the American Wine-growers Association of Ohio:

Feeling deeply interested in the improvment of our native grapes and wines, we offer the following premiums: A silver pitcher, two goblets and waiter, to cost not less than $350, as the first premium; a silver cup to cost not less than $100, as a second premium; and a silver cup to cost not less than $50, as the third premium.

The first premium to be given to the best general wine grape of our whole country. The second premium to be given to the best variety of grapes for wine purposes in the State of Ohio, provided it is not awarded to the grape that receives the first premium, in which case it will be given to the second best wine grape in the country. The third premium to be given to the best table grape, for general purposes, in the country.

Our requirements are, that the plants, when generally cultivated, shall be perfectly healthy, hardy and productive, and the fruit shall produce a wine of good quality, as to flavor, strength and quantity. The fruit shall be shown at the coming Fall consolidated exhibition of the America Wine-growers' Association of Ohio and Cincinnati Horticultural Society, in quantities of ten pounds or more, with samples of the wines from the competitors for the first two premiums, if practicable.

The Committee to be composed of the Hon. Marshall P. Wilder, of Boston; Solon Robinson, Esq. of New York; a member to be designated by the Lake Shore Grape-growers' Association, at the next meeting; a member to be appointed by the American Wine-growers' Association of Ohio, and Dr. C. W. Spalding, of Missouri.

At the meeting of the Committee to award Premiums, in case they are not all present, the members present to fill the vacancies. The award of the Committee to be final.

LONGWORTH WINE-HOUSE.

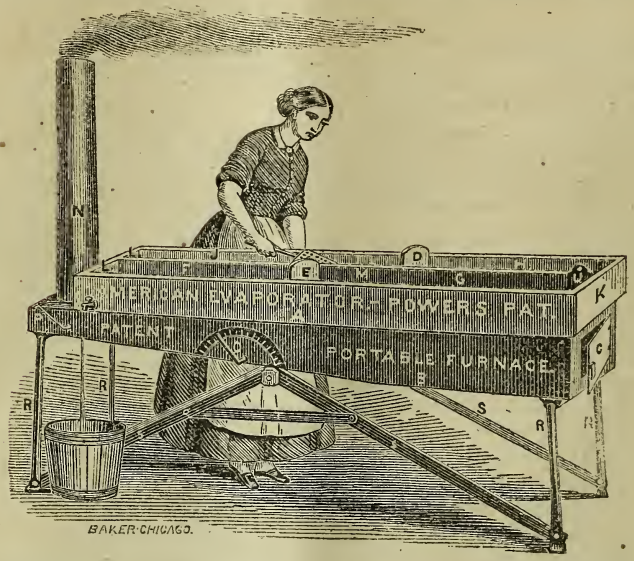
Dwarf Pears.

The following list embraces the principal popular varieties of pears, grown in the country. Some of them are grown as standards. The Flemish Beauty especially makes a quick standard growth, and produces magnificent fruit:

White Doyenne, Seckel, Flemish Beauty, Beurre Diel, Louise Bonne de Jersey, Belle Lucrative, Oswego Beurre, Onondaga Beurre, Gansel's Bergamot, Vicar of Winkfield, Urbaniste, Winter Nelis, d'Angouleme, Beurre Bosc, Lawrence, Beurre de Anjou, Des Nonnes.

Notice to Correspondents.—We will feel much obliged to any of our subscribers in North or South Carolina, who will send us two or three roots by mail, of the *Spring Flowering Flag*, or *Dwarf Iris*, (Iris Verna.) It grows among the Pines in rather dry soil, flowering in April.

THE AMERICAN PORTABLE EVAPORATOR AND FURNACE.



This is a very complete and perfect arrangement, as a Portable Furnace, for Evaporating Sorghum. Four sizes of them are made, viz: 8, 10, 12 and 14 feet long.

COMMERCIAL vs. FARM-YARD MANURES.

It is said that the amount of commercial manures, guano, superphosphates, &c., applied to English and Scotch farming, is yearly increasing; yet it is well known that many of the best English farmers buy very little of such manures, preferring to increase the manure on the farm by sheep, stock-growing, high feeding, and making the most of their stall manure by saving and composting all the urine, thus making large piles of highly nitrogenized manure, the urinary part of which is so generally suffered to go to waste by those farmers who depend on buying Peruvian guano and superphosphate. These astute farm-yard manure making farmers have proved, by repeated practice, the truth of Liebig's assertion, that the urine of both men and animals contains nearly all the nitrogen and phosphate of urine of the faeces, while the solid matter contains very little.

How many *soi disant* farmers save only the solid parts of their stall manures, slaving themselves to haul out to their fields load after load of carbonacious matter saturated with the spring rains, with so much of its soluble matter washed out that the manure itself contains barely the half of one very cent. of nitrogen!

Again, it seem passing strange that farmers are so insensible to the great importance of dead animal carcases to the increase and enrichment of the compost heap, which may be made inodorous by mixture of clay alone, and much richer in phosphates and nitrogen than ordinary manure.—*N. Y. World.*

"SOUTHERN PLANTER."—We have received the first number of this Agricultural Monthly, published at Richmond, Va., by Chas. B. Williams, Esq., editor and proprietor. We bespeak for it that success that we feel confident it will deserve. One year $3.

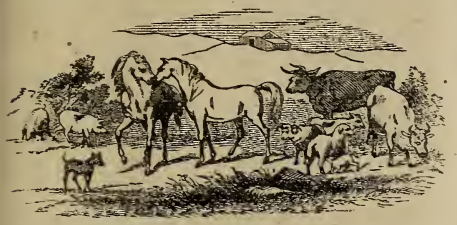
THE WEEKLY CONSTITUTIONALIST.—This first class literary and news weekly is published at Augusta, Ga., by Stockton & Co., at $3 per year. Our friends South, who want a good weekly, will find this worthy of their support.

THE BLACK KNOT.—We recently saw the black knot on the wild cherries on Mt. Philips, 2000 feet above the base of the mountain. This disease is not confined to cultivated districts. The only way to get rid of it in gardens is to cut the limbs off and burn them, and if a tree is badly infested to cut it down at once, as it will never be good for anything and will propagate the disease to young trees with great rapidity.—*Ex.*

Marriage.

Here Love his golden shafts employs, here lights
His constant lamp, and waves his purple wings,
Reigns here and revels; not in the bought smile
Of Harlots, loveless, joyless, unendear'd,
Casual fruition; nor in Court Amours,
Mix'd dance, or wanton mask, or midnight ball,
Or serenade, which the starv'd Lover sings
To his proud Fair, best quitted with disdain.

Live Stock Register.



THE "AMERICAN" MERINO.

At the recent New Hampshire State Fair, an address was delivered by Dr. Loring of Salem, Mass., in which were made the following claims for the sheep and the sheep husbandry of New England:

The sheep husbandry of New England has reached a degree of excellence of which we have reason to be proud, and by which it is destined to become one of the most important and profitable branches of farming. For many years the West has been drawing its most valuable amimals from the flocks of Vermont. It has been discovered that the kind of sheep bred there, combines more good qualities for the general business of producing wool and mutton than any other sheep known. The profit of Western flocks has been largely increased by the infusion of Merino blood from that State. And we may be sure that the animal now called the "Improved American Merino," the special product of New England, will ultimately enhance the profits of sheep-husbandry in this country, as largely as did the diffusion of Spanish Merino blood develop the same industry in Europe—producing the Saxony, Silesian, French, and other fine-wooled breeds, now so well known there. The American Merino has been brought to such a degree of development that he undoubtedly stands in the front rank as a combination of the most desirable points in a sheep. He cannot claim to be foremost in each one—but in all combined, unequalled. The best of them have:

1st. A strong, square, low, solid form with great depth and breadth, indicative of strong constitution and vigor.

2d. Admirable capacity to take on fat at maturity.

3d. A carcass of mutton rivaling the Southdowns and the mountain breeds of Scotland and Wales in delicacy and flavor.

4th. An even, uniform coating of strong wool, of the best quality, covering the whole surface of the body, and so protected from the effects of the sun and rain as to waste but little in the process of combing or carding.

We have a soil and climate peculiarly adapted to producing this sheep in the greatest perfection.—And while we may not hope to raise wool as cheaply as it can be done in Texas, or mutton as profitably as it can be done in Ohio, we may still render our sheep-husbandry more remunerative than theirs, by devotion to the business of improving the Merino for those markets, where the soil and climate are less favorable than our own to the growth of a compact, hardy animal, a thick-set, uniform, lively fleece of wool, valuable to the American farmer, and indispensable to the American manufactury.

Important Facts in Breeding.

At a meeting of the Massachusetts Board of Agriculture, Prof. Agassiz gave an account of several experiments made to ascertain the influence exerted by the sire upon the future progeny of the dam. He coupled a water-dog with a Newfoundland slut.—Part of the resulting litter showed the external marks of the sire, another portion more resembled the dam, and the remainder partook of both breeds. A second litter was bred from the same slut by a greyhound, and the pups were almost precisely like the first litter, part Newfoundland, part water-dog, with scarcely a trace of the greyhound. Similar results were obtained with rabbits of different varieties. This appears to indicate that the first fecundation of the female is not confined in all its results to the immediate progeny, but extends to the further issue. The idea is not new, but additional proof from such a high quarter is valuable. Every one can readily see its application in breeding farm stock. Great disappointment has often been felt by parties who have paid largely for the services of well-bred sires, because the resulting issue has shown little likeness to the male parent, and the latter has been condemned as a poor stock-getter. It is possible that in such cases the results were caused by the female having previously borne young by an animal essentially differing from the sire subsequently employed, and thus having been rendered incapable of producing *true* offspring to any very dissimilar animal. If so, it is an additional reason for securing the use of well-bred animals, especially for the first progeny of any female. The expansion and conformation of the productive organs may perhaps be permanently affected by the character of the first progeny.

Treatment of Young Stock.

We treat, but not with discretion. Lambs, properly treated, will make better sheep, just as sheep themselves improve (in wool and mutton) by good treatment. With calves it is still more so. Too much sweet milk can be given a calf during the summer—not for the calf's good, but for the future cow's. A calf, like a lamb, should be kept in good, healthy, *growing* condition. Good, tender pasture with a little milk (sour, or sour and sweet,) a little

meal of some kind added, daily, will be sufficient. More, will fatten—and this is not good; a calf is to grow, not to fatten. More particularly is this the case with a colt. Grass, pure pasture, is good; but a little meal (ground oats are the best) and cut Timothy, will aid, not to produce fat, but to make muscle. Timothy and oats are muscle makers—just what horses, as well as colts, calves, and lambs (out of which sheep are to be made) want.—*Col. Rural World.*

USEFUL RECIPES.

The following, from several correspondents we copy from Miners' *Rural American:*

A Plan for Doctoring Foot Rot in Sheep.—I take a box, about two feet long, by 12 or 14 inches wide, and with a strip about four inches wide across, the opposite end at the bottom. Fasten the box down, then place a chair at the full end, and you are ready for an operation. I drive my sheep into my stable, and have a temporary partition, three feet high, and hung on a pole. I then separate off a dozen or fifteen sheep, and crowd them up to the end of the stable, having my box and chair in the centre, where I can reach the most of them, without getting up. I then reach out, take one, swing it around by my side, and roll it into the box. There it lies, feet up, ready for the operation. It is also a first rate thing to tag sheep in.

Disease Among Pigs.—I saw in your valuable paper, an account of a disease among pigs, seemingly to be the sore throat, but possibly may be something else. I had one taken with wheezing, quick breathing, and some cough, and continued to grow worse. I thought he would die before night. I gave him something over a gill of melted hog's lard, and turned him out of the pen to get fresh dirt, and in one hour he was better, and got well.

A Way to Kill Quack.—If the ground has lain in sward for three years the roots of the quack will be found near the surface. Then break up the soil with a good depth of furrow, harrow and manure well, and plant with potatoes that produce a large vine. Hoe well through the season, and you will have no further trouble with quack in that field.

Sprain in Horses.—A very good remedy for a sprain in the stifle joint, or elsewhere, is as follows: 1 oz. oil of origanum, 1 spirits of turpentine, 1 British oil, 1 spirits of nitre, 1 qt. of alcohol. Mix and rub in well.

Cure for Hog Cholera.—I have succeeded well in curing this disease, by giving the hogs a plentiful supply of soap in their corn.

Lice on Calves and Colts.—Take buttermilk and soft soap, and rub the mixture well into the hair of calves and colts, twice a week, and the lice will soon disappear.

Gapes in Chickens.—My chickens died in numbers, the past summer, and I tried a remedy that cured the sick, and none of them have died. I placed scraps of old rusty iron in the water they drank of.

Horse Medicines.—A correspondent of the *Northern Farmer*, says:—I find the following of much value to my horses:

When the blood is out of order, or to restore lost appetite, I use, one lb. good ginger, 4 oz. powdered gentine, 1 oz. nitre, ½ oz. crude antimony mixed; give one large spoonfull every day in wet feed. It is perfectly safe.

Colic or Inflamation of the Chest or Bowels.—One oz. sweet spirits ether, 1 oz. tincture of opium, 1 oz. spirits of camphor, ½ drachm aconite; water milk warm, one quart; give one half and if not better in thirty minutes, give the balance.

Inflamed Bladder.—One drachm tartar emetic, ½ oz. prepared kail, 1 drachm camphor rubbed to powder, with a few drops of spirits of wine; to be given every four hours, or three times a day in a pint of water gruel.

To cure Poll Evil in Horses.—Mix Copperas and hogs lard, and simmer over the fire in an iron pot; with this rub the part affected plentifully two or three times a week and let the hot sun drive it in. The application should be made before the disease has gone too far. Mind to keep rubbing till a cure is effected: it takes time.

HINTS FOR FARMERS.

It is not what we make, but what we *save*, that makes us rich.

In looking around among my brother farmers, I notice many things wherein there might be greater economy in my opinion.

In turning cattle out late in the fall, when the ground is soft, to be tramped upon.

In letting cattle stand in an unsheltered yard in cold, stormy weather, when there is room in the stable for them.

In throwing their fodder in the yard to be tramped under foot, instead of feeding it in racks.

In not having water in the yard for the cattle, in place of driving them through snow and all kinds of weather to the creek, thereby losing more in manure during a year, than the interest of what it would cost to bring the water in the yard, to say nothing of the convenience.

In not having a house for poultry to roost in and save their droppings; the value of the latter from one hundred fowls, in one year, would pay the cost of the building, not counting the advantage it would be to the fowls.

In not having a wood-house to cut in, in rainy days, and store up dry wood.

In leaving potato vines, weeds, &c., go to waste, instead of hauling them to the hog-pen, to be worked into manure.

In riding about and leaving the management of the work too much to hired help.

And last, but not least, in sending their children to school a day or two in each week, and allowing them to play and loiter about the rest of it.—*Cor. Germantown Telegraph.*

Waterproof Composition for Boots and Shoes.—Take boiled oil, 1 pint; oil of turpentine, black rosin and beeswax, of each 3 ounces. Melt the wax and rosin, then stir in the oil, remove the pot from the fire, and when it has cooled a little, add the turpentine.

OSAGE ORANGE HEDGE.

Leo Weltz, a nurseryman of Clinton Co., Ohio, furnishes the following statement on hedge growing to the Clinton Co. Republican:

Receiving, constantly, inquiries about making Osage hedges, and preparing the ground for the same, I take this method, with your permission, to give my views, having had over fifteen years experience in the matter.

First, sub soil the ground where you intend to have the hedge, as deep as possible, throw the furrow in the center, so that you may get a ridge and have a drain on each side to let the surplus water off during the winter; also, the roots must be cut off when they make their appearance in the open furrows, for in this way you keep the roots within their boundary and in a dwarfish condition. The plowing may be done as soon as possible; then harrow the ground well in the spring, so that it is well prepared for planting; then get your plants and plant them in two rows, the rows from 10 to 12 inches apart and the plants the same way and distance in each row, only so that you break joints, which will prevent hogs getting through. The advantage in planting two rows lay in this: You want your hedge thick below, and broad—it will not take any more plants; in one row you plant from 4 to 6 inches apart, and in two rows, from 10 to 12 inches apart; therefore it takes 32 to 40 to the rod either way.

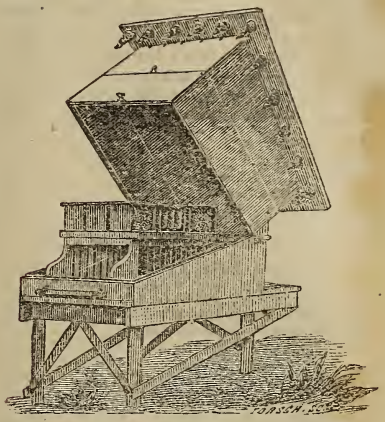
The first two years you have nothing to do but to hoe and keep the ground clear of weeds. In the spring of the third year, cut your plants off near the ground; then again in the latter part of June, cut 3 to 4 inches higher, and in the latter part of August 4 to 6 higher, and so on until the fifth year. By that time you will have 180 branches from one plant. You will see at once that by cutting in this way you get by the first cut 2 shoots, by the second from 4 to 6 shoots to each plant, and so on. By so doing, you commence to dwarf this plant, which is, in its natural state, a tree; and you must keep on trimming twice or three times every year until the fifth year, when the hedge will be from 3 to 4 feet broad and from 3 to 4 feet high.

In keeping the plant in this dwarfish condition, you will allow no big shoots, which are an injury to the plant; a great mistake is practiced by neglecting to cut the hedge at the proper time. The oftener you cut, the better it is—you will get no dead wood in your hedge below in this way, and it will, by thickness, be sure to let the hedge grow up too fast. You can have your hedge high enough in three years, but it will not turn hogs. The hedge may be cut with a scythe blade, or better with shears—the wood being soft, will cut very easy.

After the fifth year, eight or ten persons may go in partnership to buy a one-horse power hedge cutter, which will cut from eight to ten miles of hedge a day; which of course will be the thing for us, and will be within reach of everybody.

The Apiary.

L. L. LANGSTROTH'S MOVABLE COMB HIVE.



Though a full description of this hive, in all its styles, would be too lengthy to insert here, yet in order to give those who may not have seen it, some idea of its utility and simplicity a brief sketch of its *first principles* may be necessary. First, imagine a square box with a movable cover, in which is hung a series of wooden movable frames; in each of these frames the bees build a comb, which (if the hive be properly made) is attached to nothing but the frame in which it is built; consequently, by following the directions given in Langstroth on the Honey Bee, and sliding off the movable cover, each and every comb may readily be lifted out, examined and returned to the hive without the slightest mutilation or injury to it or the operator. It will thus be seen that the owner will (in using it) have *complete control* of his bees, their comb and the hive. Possessing these, all other difficulties at once vanish.

Bees Robbing Pasture.—A dairyman once remarked, that he did not like the community for dairying, on account of the bees which were pastured—the country keeping bees largely. This was a new thought, and opened the eyes of the by-standers.—but it is true, nevertheless. The saccharine principle is an important element in herbage. The white clover, which is one of the main reliances of the dairyman, is seriously robbed of its treasure by these roving thieves, at the expense of the sweetness of the milk, and the sugar generally necessary to a cow's benefit. It is a small matter, and overlooked, but has its force.—*Col. Rural World.*

A brave man in battle dies with his feet to the foe. A man who kicks his enemy lives with his foot to the foe.

Ladies Department.

Oh! Let Me Be Your Boy Again.

The following lines were suggested on hearing of the sudden death of a young man of great worth and refinement, and beloved by all who knew him, who, on the night of his death, laid his head on his mother's lap and said: "Let me be your boy again, mother; let me be your little boy again; kiss me, dear mother." Continuing this strain of pure emotional sentiment for a few minutes, he suddenly rose, threw back his head, and died on the instant:

Roll back, ye years of youth's bright joys—
Roll back proud manhood's riper years,—
Roll back, e'en let my childish fears,
Come to me with these pleasant toys;
Which wiled my happy hours away,
When dawned my early childhood's day.

Steal o'er me once again, those dreams,
Of childhood's pure and holy love,
Which lighted from the realms above,
My path shown clear as limpid streams,
Which, sparkling in the noon-tide sun,
My life reflected—as they run.

Kiss me, my Mother dear, once more,
Oh! let me be your boy again—
Let me hear but that soft, sweet strain,
And soothe my spirit as of yore;
Now fold me in your loved embrace,
From my sad soul each sorrow chase.

Am I, dear Mother, loved by thee
As well, as when in childhood's time—
My love was purely, fondly thine—
I knelt in prayer beside thy knee?
And asked for mercy, grace and light,
To guide my youthful steps aright.

He rose and stretched his hands towards heaven
With upturned face;—he gasped for breath,
While on his brow the seal of death
Was fixed—the vital cord was riven;
And his pure spirit rose above,
To the Angel world of light and love.

Thus do we see, through all life's way,
That mystic cord—a MOTHER'S LOVE,
Unchanging as the powers above,
Which points the soul to endless day,
That holy love, which felt from birth,
STILL lives, when earth returns to earth.

THE TWO KISSES.

I am an old man; so old am I that, looking back, life seems very long, and yet so short, that I do not know whether many things did not happen in dream. I am hale, and hearty, and merry, for the matter of that; and when I laugh, my laugh rings out clearly and loud, they say; so much so, that it makes the people around, especially my grandchildren, and nephews and nieces, laugh too. And when I laugh the old times come back when others, who are silent now laughed with me, and then I am suddenly still, and the laugh dies away; and when I think of it its empty echoes fill my brain just as if it were sleep laughter in a dream.

When I stop laughing so suddenly, for the merriment and enjoyment, and, for the matter of that, the grief and pain of old men, are short and sudden, like those of children—my grandchildren, and nephews and nieces, have a great difficulty to stop too; and they choke and nudge each other, and say that is a good story, uncle; almost as good as the story you told us yesterday.

Told yesterday; let me see what it was I told yesterday. How long ago it seems; it must be longer ago than the time when I was only twenty years old, a stalwart, brave fellow in yellow breeches, black leggins, a heavy, brassbound leather helmet with a plume tipped with red, and a clanking sword which I now could not lift with my two hands. I was a royal volunteer then, prepared to resist the French; and I and some of my companions were encamped in white tents on the coast of Kent.

Yes, people think me very merry. And so, thank heaven, I am; for I try to stand upright four-square to the world, as a man should; but being an old man, I have blank places in my heart now, where no love grows; barren spots in my memory, and chilled and numbed parts in my feeling whereto I cannot look back, and whereon I dare not tread and touch lest sudden pain should come back, like the shooting of an old, old wound.

Been in love? Yes, I should think I have; how else could I have grandchildren, those people who laugh so hearty when I laugh, and make me tell how old I am a score of times, and say how well I am looking.

Been in love? Yes, been in love! Well, we did love when I was a young fellow, and I recollect my Alice, and I recollect her as I loved her when she was very young, and as I love her now. I think she could do anything but drink and smoke or tell an untruth, or do a wrong action. Her face was a sweet oval face; her hair a very dark brown, nearly black; and her eyes were a deep blue, full of merriment at one moment, ay, at all moments, except when she heard a sad story or was touched with pain for any one else, and then they grew deeper and deeper as they filled with tears. Not for herself. She never cried for herself that I know of, for she never had a day's illness. But she was terribly cut up when her brother died, and that you see was how I knew her. Her brother was my right-hand man in my company. Many's the time he stood shoulder to shoulder to me, good at drill, good at song—good at anything. He used to live near the coast; and indeed, he joined us, and I was one of his tent fellows, and his chum.

Well, he knew people that I knew, and we were soon friends; and he took me home to show me Alice. He was always talking about her, and she about him; and when he was there, scarce a look did she give me. Her brother—his name was Joe, and mine too—could do everything, and was the be-all and end-all of the world, I used to think; and so one day I tried to run with Joe, and Joe beat me, and Alice laughed; and then I shot against Joe, and he beat me too, and she laughed the more; and I wrestled with him and threw him, she didn't laugh then, but ran to see whether he was hurt, and said it wasn't fair for Joe to tackle a big fellow like me, although he was nigh an inch taller. In short, I could not please her anyhow.

Well, it was one day when we heard that the flat-bottomed boats of old Boney were not coming over, and that the army of Bonlogne had melted, bit by bit, away like a snowdrift, that we make a night of it. Ay, it was a night, too! and, being hot and in the summer, we must need keep up the fun till the sun came up over the seacoast, looking red and angry at our folly. Well, Joe and I, the two Joes, as they called us, ran down to the beach and washed out hot faces, and plunged in the fresh, salt waves, and were in a minute as fresh and merry as larks. And after dressing Joe must needs take a walk with me, who was nothing loath, you must know, along the edge of the cliff. The seas for centuries have been washing the chalk-bound coast, and at intervals there stand up pillars of chalk, with seas around them. The people call such a place "No Man's Land," and no man can own it, truly. Well, Joe came to one of those within a few feet, say twelve, from the cliff, and turning to me, said, "Joe Junior," said he, I think I see his bright face now, "I challenge you to jump on that 'No Man's Land,' I do."

"Joe," said I, hurriedly, "don't be a fool? It may be would

give way at the top, and if it did not, how could you jump back without a run. Would be stuck on the top like a mad sentinel or a pillar saint. I'm not going to jump it."

"But I am," said he. And before I could stop him, if indeed I had tried, he took a run, and jumped.

It was so sudden that I could only stand aghast when I saw him there. He stood, indeed, for a moment, and then he took a back step, and would have jumped back, when I heard a rumbling sound, and half the top of the "No Man's Land" part, and the chalk and earth, and Joe, too, fell down with a crash on the rocky coast below.

I ran round the little creek to the other side of a small bay, and throwing myself down on the turf, stretched my neck over, looke dover and cried out, "Joe! Are you hurt, Joe!"

A faint voice came up and I could see the poor fellow struggling under a huge piece of chalk which seemed to hold him down in agony. He smiled in a ghastly way, aud said, "Run, Joe, run! the tide's coming in!"

Well, I did run and we got ropes from the tents, and a few strong fellows held them as I swung over the cliff, just reaching poor Joe as the cold water was lap, lap, lapping up to his mouth, taking away his breath and then running back, crawling over him and leaving bubbles of salt foam, as if in sport. I got him out, but he could not stand.. Some bones were broken and he was badly bruised, so that I was forced to tie him to a rope, and they hauled him up, and we took him home.

Well, well, to make a long story short, poor Joe died, with my praise on his lips, and Alice bowed her head like a broken lily. It was a long time before she got over it, and summer had grown into winter, and winter to summer, to autumn, and to winter again. The threatening invasion was all over; our swords were getting rusty, our uniforms dirty, and when the holidays came I left the firm in which I was a partner, and went to spend a forenight at my old friend's in Kent.

Alice was there, well and cheerful now, and reconciled to her loss, though we often talked of poor Joe, and as the days went on we grew closer together, and she called me by my name, and seemed to have transfered her brothers love to me. She never told me so nor let others see it, till one merry Christmas night, when she rejected all her cousins and her other friends, and would only dance with me.

We had the mistletoe, too. At last, one madcap fellow proposed that the ladies should kiss the gentlemen all around when and how they could; and Alice should play, too; and she, in a solemn, quiet way, smiling sadly, and yet sweetly, too, took me beneath the Christmas bough, and kissed me on the lips.

Ay, it's many years ago, but I feel it now. My heart beat so fast that I hardly dared return it; but I put my arm around her and took her gently by the bay window of the old hall, saying, as I pressed her hand: "Alice, dear Alice, did you mean that kiss?"

Well, I need not tell you what she answered. 'Tis fifty years ago, fifty years ago! and I am surrounded by Alice's dear grandchildren, and there is one, a little thing with light and golden hair that will deepen into brown, who plays around my knees and tells me her little stories, her sorrows, and her joys; so quick, so hurried in their coming and their going that they are like my own, and as we talk, we grow quite friends and companions, as my Alice was to me.

Bless you she understands it all. She is a woman in her pretty ways; her poutings, pettings, and quarrellings. She manages her household of one wax-doll and two wooden ones, and tells me, for the wax-doll is the lady and the two wooden ones are the servants in mob caps and stuff gowns, when they gossip with a wooden policeman, who belongs to her brother, little Joe.

DOMESTIC RECIPES.

Stewed Beef.—Housewives who are in the habit of using only steaks and roasts, make a great mistake. A capital dish may be made out of the "chuck," as the butchers call it, or the neck, when well prepared. Select a piece of meat as large as the demand of your table may require, wash it well to remove all the blood or soil from the outside, have your dinner pot perfectly clean, salt and pepper the meat well, lay it in the bottom and cover it with water; boil it from two to three hours, or till it is thoroughly tender; add half an onion, a sprinkle of sage, thyme or summer savory.

If the meat is fat, let the water all stew out a half hour before it is put on the table, and when your meat is browned well on the lower side in the gravy, turn it over and brown the other side. When ready, take it up, add a little flour thickening to the gravy, or if you have a dredge box shake the flour into the hot gravy and brown it, then add boiling water, and you will have a dish equal, and to my mind superior to the common roast beef upon boarding house tables.

Care must be used to turn it; and equally necessary is good judgment in having it thoroughly well cooked.—*Mrs. Gage.*

Yeast Bread.—Take 1 pint of sour milk, set it on the stove and let it come to a boil; pour it over one small handfull of flour, stir until smooth, let it stand until it is cool enough to stir in the yeast. Next morning heat the same quantity of milk as before, set it off to cool, get your flour ready, make a cavity in the centre and put one tablespoonfull of salt, then stir in the milk. Add the yeast, knead well and set aside to rise. When light knead it over without adding anything; let it rise again to a light sponge, then grease your hands and pans well and mold out. Let it rise, then bake in a moderate oven until light, or three quarters of an hour.—This will make three nice loaves.—*Cor. Prairie Farmer.*

How to make an Omelet.—The proper way to make an omelet is to take three teaspoonsful of milk for each egg, and a pinch of salt to each one also. Beat the eggs lightly for three or four minutes, and pour them into a hot pan in which a piece of butter the size of a walnut has been melted a moment before. The mass will begin to bubble and rise in flakes immediately, and the bottom must be lifted incessantly with a clean knife so that the softer parts run in. An omelet should be cooked about three or four minutes, and made in this way will melt in the mouth.—*Scientific American.*

Dry Bean Soup.—Take a quart of nice beans, and put them to boiling by 8 o'clock at least, then wash a joint of pork, that is after most of the meat is used off; put it in at half-past 9 o'clock, and at 11 o'clock add some corn dumplings; don't forget to salt them, and to add some red pepper. At half-past 11, add some wheat dumplings. Boil until done, and you will have a dinner fit for a king. If one of your neighbors should happen to drop in about dinner time, ask him to stay, and try your soup, for it don't cost you much to make it.

To Make Nice Bread.—Take equal quantities of good new milk and boiling water; stir in flour until considerably thick, (less so than fritters,) keep in a warm place (where they will remain at about the same temperature as when first made) until they have risen; then add as much warm milk (half water will answer) as you have emptyings; add a teaspoonfull of saleratus; mix not *too* hard; put in tins and let rise; then bake in a moderate oven one hour, and you will have *beautiful* bread. Care should be taken that the bread does not rise *too much* before baking, else it will not be so good.

A Good Pudding.—The inside of a five cent loaf of bread, half pound suet, one pound raisins, half pound brown sugar; tie tight in a bag and boil four hours. Eat with wine sauce.

YOUTHS' DEPARTMENT.

ASPIRATIONS OF YOUTH.

Youth is the golden age of life. It is then that the mind is vigorous and active—the body strong and athletic. The care and anxieties of the world have not yet left their deep impressions upon their soul. 'Tis true, there are misty clouds floating in its bright sunshine, but it looks even on those clouds, and beholds their thin watery edges, tinged with gold. Buoyant with hope, fluttering on the gilded wings of anticipation, it begins its weary flight to the summit of the hill of Fame. The young man starts anew his voyage upon the sea of life. He launches his frail bark in her deep waters, and with its silken sails fluttering in the breeze, it skims like a bird, the surface of the pearly waves. But soon those waves are ruffled. He has listened to the cavils of those around him, and he looks forward on a dark and unknown sea. There has been many a lovely flower crushed by a heedless foot, whose leaves were painted with rainbow colors by the inimitable pencil of nature, and whose fragrance was scattered to every breeze; so there are men living in this world of ours, who, when they behold the humble aspirations of youth, would not utter a friendly word; they would rather concentrate their influence to baffle him in his attempt to put forth a single effort to urge him onward in the path that leads to true greatness. Mind is but a spark from the great sun of the universe; and as the glittering stream becomes chilled by the icy touch of winter, and loses its brilliancy, so the flickering light of the mind is often almost extinguished by the cold and chilling advice given by those who are our pretended friends. Young men, heed not the sneers of a selfish world! Let the example of the great and good stimulate you to high and noble deeds. Let us look at the past. Oliver Cromwell was the son of a brewer; Benjamin Franklin a poor journeyman printer; Virgil, the great Latin poet, was the son of a potter; Ferguson, the great astronomer, was a shepherd; Ben. Jonson, a bricklayer; and Shakespeare, the immortal Shakespeare! whose works have been scattered in every part of the civilized world, and whose praise has been heralded by the silver clarion of fame throughout every land, was the poor child of an humble wool-stapler. But we need not go to the past for instances in which men have risen to stations of eminence by energy and perseverance. Our own Lewis Cass was once a poor teacher; Douglas, a cabinet maker; Fremont, a surveyor; Ewing, a wagon boy; President Johnson, at the age of twenty, could not repeat the alphabet. Let us be animated by the success which has attended the efforts of such men as these, and let us strive to imitate their example. Let us be in earnest.

"Life is not a shining bubble,
It is more than empty show."

And though foes appear on every side, let us battle manfully for the right. Never be ashamed of being called a mechanic. Hon. W. W. Pepper, a judge of one of the Circuit Courts of Tennessee, and formerly a blacksmith, at one time presented to Gov. Andrew Johnson a fire-shovel which he had made with his own hands. In return, the Governor, who was formerly a tailor, cut and made a coat and presented it to the judge. They were not ashamed of having the world known that they were once mechanics. "He that has a trade, has an estate only; that estate to be productive must be used." And if you would rise to any station of eminence, self-reliance is of the greatest moment. Let all you do, be done well! Don't rely upon your friends! The hopes you entertain of and from those you call your friends, will never be realized. Depend upon your own exertions and decisions of character for future success. They will be of more real benefit to you than all your pretended friends; and remember that without the blessing of God you cannot truly prosper. "In all thy ways acknowledge Him and He will direct thy paths."

THE TWO BRIDES.

I saw two maids at the kirk,
And both were fair and sweet;
One was in her bridal robe,
One in her winding sheet.

The choristers sang the hymn,
The sacred rites were read—
And one for life to life,
And one to Death was wed!

They went to their bridal beds,
In loveliness and bloom;
One in a merry castle,
One in a silent tomb.

One to the world of sleep,
Locked in the arms of love;
And one in the arms of Death,
Passed to the Heaven above.

One to the morrow woke,
In a world of sin and pain;
But the other was happier far,
And never woke again!

A correspondent at Franklin, Heard County, Ga. writes us February 8th, 1867:

Enclosed you will please find $1.50 to renew my subscription to the "Maryland Farmer" for 1867, as I regard it invaluable to every housekeeper, agriculturist and horticulturist. Since the abolition of slavery and the derangement of labor in every department, the southern people will be compelled to adopt all the improvements both in labour saving machines, and the cultivation of the soil. I have commenced supplying myself with Machines, as far as my oportunity and means have permitted me. I would make one suggestion to your patrons in advertising machines, tools, implements, &c., and that is to always give the prices, as it would enable your numerous readers to know whether they are able to purchase, and to determine whether they would be authorized to do so.

Cloverseed is usually sown in March upon the grain crops. Should there be a little snow on the ground no injury will ensue by sowing upon the snow, as when it melts the water carries the seed with it into the soil. Many farmers prefer thus to sow their clover-seed.—*Germantown Telegraph.*

Whatever we may think of a woman's rights to vote and legislate, there can be no dispute to her right to bare arms—and the prettier the better and more irresistable.

Why is a young man's arm like the gospel? Because it makes glad the *waist* places.